DOCUMENT RESUME

ED 350 993 IR 015 808

| | |
|---|---|
| TITLE | Teacher Education at a Distance: Meeting the Needs of the Disadvantaged. Final Report of the Regional Workshop in Distance Education in Teacher Education Organized by Unesco PROAP in Collaboration with Balitbang Dikbud and the Universitas Terbuka (Jakarta, Indonesia, November 1-9, 1988). |
| INSTITUTION | United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and the Pacific. |
| REPORT NO | BKA/90/M/197-500 |
| PUB DATE | 90 |
| NOTE | 70p. |
| PUB TYPE | Collected Works - Conference Proceedings (021) -- Reports - Descriptive (141) |
| EDRS PRICE | MF01/PC03 Plus Postage. |
| DESCRIPTORS | Access to Education; Developing Nations; Disadvantaged; *Distance Education; Educational Development; Elementary Secondary Education; Equal Education; Foreign Countries; Higher Education; *Inservice Teacher Education; Material Development; Networks; *Preservice Teacher Education; Teaching Skills |
| IDENTIFIERS | *Asia; *Pacific Region; Strategic Planning |

ABSTRACT

This regional workshop on teacher education at a distance met to review existing distance education modalities and identify common problems and issues; cooperatively develop innovative strategies and guidelines for meeting the needs of girls, disadvantaged groups, and those in remote areas; review existing networks in distance education for teacher education and to develop improved networking mechanisms to enhance the effectiveness of teacher educators and other educators engaged in strategic development tasks; and plan national follow-up workshops for distance education in teacher education related to strategic development tasks to meet the needs of disadvantaged groups. The four chapters in this report address: (1) experiences in teacher education at a distance--including information on programs in Bangladesh, Indonesia, New Zealand, Pakistan, the Republic of Korea, Sri Lanka, Thailand, the University of the South Pacific, Australia, India, Nepal, and the Philippines; (2) reaching teachers of the disadvantaged--identifying disadvantaged groups and addressing the issues of access, relevance, equity, professionalism, developing teaching skills, networking, developing and producing materials, dissemination of materials, and evaluation; (3) national follow-up plans of action; and (4) regional co-operation. A list of the names and addresses of the 14 workshop attendees is appended. (ALF)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED350993

APEID

Asia and the Pacific Programme of Educational Innovation for Development

# TEACHER EDUCATION AT A DISTANCE: MEETING THE NEEDS OF THE DISADVANTAGED

**Final Report of the Regional Workshop on Distance Education in Teacher Education organized by Unesco PROAP in collaboration with the Balitbang Dikbud and the Universitas Terbuka**

**Jakarta, Indonesia**
**1 - 9 November 1988**

CONTENTS


| | | | |
|---|---|---|---|
| PREFACE | | | i |
| Chapter One | : | Sharing experiences in teacher education at a distance | 1 |
| Chapter Two | : | Reaching teachers of the disadvantaged | 22 |
| Chapter Three | : | National follow-up plan of action | 54 |
| Chapter Four | : | Regional co-operation | 57 |
| Annex I | : | List of participants | 58 |


120/550 f

UNESCO

Unesco Principal Regional Office for Asia and the Pacific
Bangkok 1990

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Carmelita Villanueva
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."



BKA/90/M/197-500

Published by the
Unesco Principal Regional Office for Asia and the Pacific
P.O. Box 967, Prakanong Post Office
Bangkok 10110, Thailand

© UNESCO 1990

Printed in Thailand

Unesco Regional Workshop on Distance Education in Teacher Education, Jakarta, 1-9 November 1988.
*Teacher education at a distance: meeting the needs of the disadvantaged;* final report of the Workshop organized by Unesco PROAP in collaboration with the Balitbang Dikbud and the Universitas Terbuka. Bangkok, Unesco, 1990.
60 p. (Asia and the Pacific Programme of Educational Innovation for Development)

1. TEACHER EDUCATION – ASIA/PACIFIC. 2. DISTANCE EDUCATION – TEACHER TRAINING – ASIA/PACIFIC. 3. DISADVANTAGED GROUPS – EDUCATION – ASIA/PACIFIC. I. Unesco. Principal Regional Office for Asia and the Pacific. II. Title. III. Series.

370.71
378.17
374.4

*The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of Unesco concerning the legal status of any country, territory, city or area or of its authorities, or concerning its frontiers or boundaries.*

## PREFACE

The Tenth Regional Consultation Meeting on the Asia and Pacific Programme of Educational Innovation for Development (APEID), which was organized at the UNESCO Principal Regional Office in Asia and the Pacific (PROAP) in 1986, identified three major areas of concern for the fourth programming cycle (1987-1991), namely: i) education for all; ii) making education relevant to societal requirements; and iii) supporting activities and infrastructures common to all educational levels and systems. One of the main programme areas included in the third area of concern is that of training educational personnel, including professional support services and distance education.

In accordance with the 1988 Work Plan of APEID, UNESCO PROAP, through its Asian Centre of Educational Innovation for Development (ACEID), convened a Regional Workshop on Distance Education in Teacher Education (Strategic Development Tasks to Meet the Needs of Girls, Disadvantaged Groups and Those in Remote Areas), at the Universitas Terbuka in Jakarta, Indonesia from 1 to 9 November 1988.

The Workshop was attended by nine participants from Bangladesh, Indonesia, Pakistan, Republic of Korea, Sri Lanka, Thailand and the University of South Pacific; two resource persons from New Zealand and Pakistan; and three observers from Thailand (1) and Indonesia (2). (See Annex I).

The main objectives of the Workshop were:

1. To review the existing distance education modalities and to identify problems and issues which are commonly felt in teacher education through distance education;

2. To co-operatively develop innovative strategies and guidelines for teacher education through distance education which are designed to meet the needs of girls, disadvantaged groups and those in remote areas;

3. To review existing networks in distance education for teacher education and to develop improved networking mechanisms to enhance the effectiveness of teacher educators and other educational personnel engaged in strategic development tasks, e.g. those working with girls, disadvantaged groups and people in remote areas; and

4. To plan national follow-up workshops for distance education in teacher education related to strategic development tasks to meet the needs of disadvantaged groups.

In her opening remarks in the inauguration, Dr. Christina Mangindaan, Dean of the Faculty of Education, Universitas Terbuka, warmly welcomed all the participants, resource persons and observers to the Workshop.

Dr. Leonardo de la Cruz, Head of the Asian Centre of Educational Innovation for Development, Unesco PROAP, then extended to all the participants greetings from Dr. Makaminan Makagiansar, Assistant Director General for Co-ordination of Unesco Activities in Asia and the Pacific and concurrently Director, Unesco PROAP. Dr. de la Cruz thanked the Governments of the participating countries for honouring Unesco's invitation to this Workshop. He also expressed Unesco's appreciation to the Government of Indonesia, in general; and to the Balitbang Dikbud and Universitas Terbuka, in particular, for generously hosting the Workshop.

Dr. de la Cruz stressed that in many developing countries development is difficult to achieve because a sizable disadvantaged population are deprived of education for economic and socio-cultural reasons, and/or due to geographic isolation. If ever the children of the disadvantaged groups obtain a basic education, it is often not of the same standard or relevant to their needs. In addition, in many developing countries of the region, schools in remote and slum areas are mostly manned by untrained teachers. The qualified and better teachers invariably find employment in elite social settings.

Dr. de la Cruz recognized that it is not easy to upgrade the qualifications of thousands of untrained teachers in remote areas. However, with the emergence of distance education, what used to be seemingly impossible can now be done. He hoped that the Workshop could come up with new strategies in teacher education through distance education that would help produce high quality, committed teachers who will ultimately help reduce the problem of low participation of primary school age children, especially girls and the children of disadvantaged groups, such as those living in remote areas and slum communities. These, he said, are important target groups, for the unschooled are less able to enjoy a full life, their employment prospects are less, access to wholesome cultural heritage is limited, and participation in development restricted.

At the inauguration Dr. Atwi Suparman, Vice Rector of the Universitas Terbuka, also extended a welcome to all the participants, resource persons and observers on behalf of Prof. Dr. Setijadi and the University of Terbuka. He said that it was a distinct honour for the University to host the Unesco Regional Workshop, and stressed the importance of the Workshop in the context of extending teachers education through distance education. He felt that the upgrading of untrained teachers and in-service education of trained teachers, especially those in remote areas, are crucial steps towards the improvement of education in general, and particularly in helping disadvantaged groups to effectively participate in development efforts as well as enhance their quality of life. Dr. Suparman added that it is partly for that noble pursuit that the Government of Indonesia set up the Universitas Terbuka in 1984. He pointed out that since many young people and adults, including teachers in remote areas, could not benefit from the conventional centres of learning, distance education becomes a necessity. Dr. Atwi Suparman added that the Universitas Terbuka reaches out through its distance education methodology to the learners, instead of requiring them to come to the University campus.

The Workshop unanimously elected Mr. Bilal Daulay (Indonesia) as Chairperson and Mrs. Eileen Tuimaleali'ifano (University of South Pacific) as Vice-Chairperson. The two resource persons, namely Dr. Shaukat Ali Siddiqui (Pakistan) and Mr. Peter Wilkinson (New Zealand) also served as Rapporteurs of the Workshop, and as Chairpersons of the two working groups.

A combination of plenary sessions and group work were resorted to during the Workshop.

## Chapter One

## SHARING EXPERIENCES IN TEACHER EDUCATION AT A DISTANCE

### Introduction

Teacher education through distance education emerged *inter alia* to meet the need for trained teachers in many countries of Asia and the Pacific. In many countries unqualified teachers are being hired because of the non-availability of trained teachers to serve the need of the disadvantaged groups. There is an urgent need to upgrade the qualifications of such teachers. This has invariably been difficult for two main reasons: first, many primary schools are too far away from teacher education institutions, and many of the untrained teachers cannot afford to travel and stay in the teacher education institutions even when schools are not in session; secondly, during school days, they cannot leave their classes, without sacrificing the welfare of students and important concerns of their own families. Through distance education it is now possible for the untrained teachers to undertake courses to upgrade themselves, wherever they are.

In many countries there are enough trained teachers. However, some studies have shown that five years after graduation from teacher training institutions teachers' effectiveness tends to gradually decline unless systematic in-service education programmes are provided for them after a stipulated period of time. Again, it has not been easy for teachers in remote areas to avail themselves of opportunities for professional growth. However, with the advent of distance education, a golden opportunity has dawned on teachers in service to continuously upgrade their knowledge throughout their professional career.

The participants of the Workshop briefly described their country experiences in teacher education through distance education this material being presented in the pages which follow.

### BANGLADESH

Bangladesh is a country with an area of 144,000 sq.km. and a population of over 110 million in 1988. The standard of education is declining with the rapid growth of the population. There is a shortage of trained teachers at every level of education. The lack of trained teachers is responsible to a great extent for the deterioration of quality education. To solve the problem, the government launched the Universal Primary Education Project. Through this Project, it is planned to train thousands of primary school teachers in service through the existing primary teachers training institutes and the National Academy of Primary Education at Mymensingh.

Provision for teacher training at the secondary school level is considered very important, as the secondary school teachers are viewed as the key personnel for enhancing the standard of secondary education. They are usually trained in the 10 Teacher Training Colleges of the country and the National Institute of Educational Administration, Extension and Research. It has been found, however, that it is not possible for these 11 teacher training institutions to provide training for about 100,000 untrained secondary school teachers through the regular course programmes and curriculum.

Different projects have been launched to train the secondary school teachers. One of these Projects is the "Secondary Science Education Project". During the last five years about 10,500

secondary school teachers have been trained through this project. National pay scales have been so designed as to encourage the teachers to receive training, thus putting extensive pressure on existing teacher training institutions which have a total intake capacity of only 3,000 students per annum.

**Introduction of distance education**

The B.Ed programme, which was introduced in the Bangladesh Institute of Distance Education (BIDE) in 1985, relieved a part of this pressure. It was introduced to test the efficacy of the distance education methodology for teacher education.

BIDE was initially started with the following objectives:

1. To improve the quality of primary and secondary school teachers through modern electronic media supported by correspondence materials;

2. To improve the quality of classroom teaching in 1100 secondary schools through radio broadcasts and cassette lessons supported by radio-vision materials;

3. To supplement the teacher training programme of ten Teacher Training Colleges (T.T.C), the National Institute of Educational Administration Extension and Research (NIEAER), and the National Academy for Primary Education (NAPE).

To fulfill these objectives, the following major programme were envisaged:

1. Production and distribution of teaching aids (maps, charts, teachers guides, and radio broadcast programmes);

2. Production of audio and video programme cassettes to support teacher training programmes;

3. Production of radio programmes on various school subjects; and

4. Provision of short training courses to science teachers of selected secondary schools and the maintenance of audio control console sets supplied to these schools. Provision of media support was also envisaged for TTC's, NIEAER, NAPE and the mobile unit services for the orientation of teachers in the new curricula.

**B.Ed programme via D.E.**

The Bachelor of Education programme through BIDE was started in July 1985 under the academic umbrella of Rajshahi University. This programme was envisioned to enable the in-service trainees to receive training through distance education without leaving their jobs and places of duty. The programme included specially developed correspondence materials, audio cassettes and radio and T.V. programmes.

To supplement correspondence materials through face-to-face method of training, eleven teacher training institutes have been chosen as regional centres of BIDE for conducting tutorial services and for providing demonstration teaching during summer sessions. The syllabi of the B.Ed. programme is the same as that which is prevalent in conventional institutions. However, the B.Ed.

programme through distance education is completed in two years, instead of ten months as is the case in the formal training institutions.

**Basic issues**:

The B.Ed. programme in Bangladesh has been introduced not only to enrich the in-service secondary school teachers professionally but also to give the teachers an opportunity to receive higher salary. This has caused a lot of pressure on the 11 Teacher Training Institutes, especially on BIDE since a big percentage of graduates of the BIDE B.Ed. programme get first class pass.

BIDE has produced the first batch of its B.Ed. graduates since its inception 1985; and 80 per cent of the students have passed. It has awarded first class (excellent) to 413 candidates (out of 2100) which is quite unusual compared to the experiences of the conventional B.Ed. programmes. An evaluation study is being conducted to examine the results of the first batch of students. A survey shows that the B.Ed. candidates under BIDE were no better than those under conventional education. The communication system in Bangladesh is very inadequate, which causes serious problems for the teachers in receiving their learning materials on time, and in attending tutorial classes and summer schools.

**Measures**

It is believed that the B.Ed. programme through distance education is a substantive innovation in the field of teacher training. It must be maintained and, if necessary, supported financially by the government. Likewise the present controversy about the efficiency of the B.Ed. programme through distance education needs to be resolved soon. Modules, syllabi, tutorial services, teaching practice components and the training materials used in the programme need to be improved.

**Future Plans**

The establishment of an open university in Bangladesh is being contemplated to strengthen distance education programmes and to provide education and training for the disadvantaged groups.

A Technical Assistance Project Proposal (TAPP) has been prepared and a high powered study team has already left Bangladesh to visit the open universities in Thailand, India, Pakistan and the U.K., and to study the feasibility of establishing an open university in Bangladesh. This will hopefully pave the way for the development of better quality teacher education programmes in Bangladesh.

## INDONESIA

Indonesia consists of more than 13,000 islands which are scattered over an area that is over 5,110 km long and 1,888 km wide. It is comprised of 81 per cent of ocean and 19 per cent of land area. The total population in 1988 was about 170 millions. There are about 27 million primary school students and about one million teachers.

**Primary school teachers**

Since about 70,000 primary school teachers graduate from teacher training colleges annually, there is no problem in terms of quantity. However, qualitative improvement of primary school teachers

is a problem. In line with government policy for the improvement of the quality of teachers' many efforts have been made to provide in-service training for these teachers. However, it is not an easy task to meet the in-service training needs of nearly one million teachers, 75 per cent of whom are working in remote areas. One of the problems is how to reach and to give continuous training to all of them. There was an intensive face-to-face training programme from 1973 to 1980. Only 400,000 teachers could be trained through this programme. Hence, distance education was launched in 1977.

This distance education project for primary school teachers was managed by a project under the Centre of Communication Technology for Education and Culture (Pustekkom) called TKPD (The Project of Communication Technology for Primary Education). Using a non-conventional system of training through radio broadcasts, this project aims at improving the knowledge and skills of teachers teaching the school curricula.

The project started in 1977 as a pilot project in two provinces. It was gradually extended to 14 provinces out of the total 27 provinces of Indonesia. In the beginning, the project complemented teacher training through the face-to-face mode. Since distance education emerged in 1980 as an alternative mode for training teachers, training was mainly provided through radio programmes supported by supplementary printed materials. The development of the PDKBM (the Basic Patterns of Teaching/Learning Activities) served as a guide for the development of the radio script and supplementary printed materials. The PDKBM programmes were developed on the existing curriculum. In the development of the curriculum, radio script writers, supplementary materials content specialists, media specialists and teachers were also involved.

About 320 radio programmes are produced every year. There are 10 to 12 editions (with approximately 40,000 exemplars per edition) of printed materials.

Sixty-four copies of cassettes of radio programmes are developed in the Radio Production Centre in Semarang and Yogyakarta and then sent to Jakarta (Pustekkom) for distribution to the local implementation units (the Sanggar) in 14 provinces. The Sanggar then sends them to the local radio broadcasting stations. The printed materials are also distributed from Jakarta directly to the schools through District Offices of the Ministry of Education. The teachers come to the district offices to receive a set of their materials.

Broadcasts are usually made in the morning, the afternoon, and in the evening in some provinces. The main target audience of this project are teachers in service and students of teacher education institutions. About 150,000 teachers are now participating in this programme. Teachers usually listen to these programmes in groups at school and have some discussion afterwards. The learning groups are organized at each school by a secretary and supervised by the headmaster. The learning groups are regularly inspected by the supervisors consisting of primary school inspectors and Sanggar staff who perform on the spot observations quarterly, and by Pusttekom staff who undertake yearly monitoring functions.

Among the important needs for the successful implementation of this project are: (1) the need for a comprehensive monitoring and feedback system, (2) the need for additional staff and adequate funds for their travels, (3) the need to speed up the designing, writing and preparation of learning materials so that distribution can be undertaken well ahead of time, 4) a diploma or advanced degree should be made part of the programme so that teachers have some incentive to work.

**Secondary/high school teachers**

The Teacher Training and Educational Science Institutes (IKIP) produce teachers for junior and senior high schools. These institutions offer two programmes, Strata 1 (S1) and a Diploma (D).

Strata 1 (S1) is a degree programme. It is equivalent to a bachelor degree, in which students have to complete 144-160 semester credit units (SCUS). The S1 graduates teach in junior or senior high schools. They can also teach at the university level if they have good grade point averages (GPA more than 2.50). The need for junior and senior high school level teachers is crucial. IKIPs, therefore, offers a crash training programme to fulfill the need for teachers. They offer three Diplomas. Diploma I is a one-year training programme after graduating from senior high schools. These students are trained to teach in junior high schools. Diploma II is a two year training programme after senior high school. The graduates of this programme are supposed to teach at either junior or senior high schools. Diploma III is a three year training programme after senior high school. The graduates of this programme are expected to teach at senior high schools.

After two years of teaching experience, the government feels the need to upgrade all these teachers. But the problem is to find substitutes for them if they come back to the IKIPs for in-service training. A feasible alternative to solve or reduce this problem is to use a distance education system for the in-service education of teachers. This would also serve the disadvantaged groups who cannot hope to obtain an education in conventional schools.

**Universitas Terbuka: a new alternative**

Universitas Terbuka (UT) provides courses at a distance. It has four faculties, these being: Education, Economics, Mathematics and Natural Sciences, and Social Sciences and Political Science.

The Faculty of Education serves the in-service teachers who need to upgrade their skills and knowledge in teaching through distance education. This faculty offers D2 to serve those teachers who hold D1 and S1 certificates.

The Akta V is for those university lecturers whose ranks are between IIIa and IVb. The lecturers who have no educational background are given more educational courses. The lecturers with an educational background are given in-service education on their own subject matter. The Akta V is a one year training course.

**Problem**

The main problems faced by the distance education programme for in- service teachers are as follows:

1. How to overcome the student's isolation and how to attract more in-service teachers to join the distance education programme?

2. How best to monitor the students' study progress and its impact on their teaching capabilities?

The in-service teachers are not given written assignments except multiple choice type take-home examinations. They are also not provided with a teaching practicum. It is, therefore, not easy to measure students' improvement in their teaching skills. The reason for not providing teaching practicum is the difficulty of managing and supervising the process of practicum all over Indonesia.

**Directions for future development**

A recent development at UT is that students form study groups in big cities in Indonesia, especially on the island of Java. These study groups are registered at regional centres as well as at UT head office. These study groups can ask UT to provide them with tutors for certain courses which are difficult. If UT cannot provide tutors, these study groups can themselves hire lecturers from conventional Universities.

The idea of study groups is very effective in reducing the problem of isolation. UT's students can have study groups even in remote areas. UT not only provides trained tutors but also facilities for peer teaching in these study groups.

As cited earlier this study group system reduces the problem of isolation. It is also economical for students since they can share their course materials with their friends and they can have a stronger feeling of identification with UT.

The regional centres can help students to form their own study groups by giving them the list of students living in their area. Study groups are also one way of attracting more students for the UT programmes.

## NEW ZEALAND

In New Zealand, primary education refers to a full-time compulsory schooling programme that starts when children are 5 years old and ends seven years later when they are about 12 years old. Upon leaving the primary teaching system, all children receive a further programme of compulsory tuition referred to as secondary education. When they attain the age of 15 year, they can leave school and go to work. Many New Zealand children, however, stay on at secondary schools to receive further education.

Tertiary education is available upon application (with the exception of a few popular subjects) to most school-leavers and adults for a modest fee. New Zealand's 22 regional and two national polytechnics cater for young and mature adults wanting trade or technician qualifications, and New Zealand's six universities are open to school leavers and adults with the prerequisite entry qualifications.

Despite the apparent ease with which New Zealanders can gain access to tertiary education, the numbers taking advantage of this opportunity are significantly less then in many other developed countries.

**Pre-service training of teachers**

All teachers of primary and secondary school children receive full-time teacher education at a state college of education. Primary teachers receive three years' training while secondary level teaches

receive one year's training after they have acquired a university degree. Both primary and secondary school teachers receive their teachers' certificate only after they have satisfactorily completed teaching class children for a year at the school. Polytechnic teachers and university teachers receive little or no pre-service training. Twelve weeks compulsory in-service training is given to polytechnic teachers at a regional training institution. These teachers are released from their teaching duties for two weeks at a time during the two or three years of their employment.

University teachers receive little or no pre-service training.

It is important to note that in New Zealand the educational authorities have never taken up the mode of distance education as a means of providing pre-service for initial in-service teacher training.

**The further education of teachers**

Practising teachers can further their knowledge of the various aspects of teaching by taking relevant papers at the nearest university. Many teachers take advantage of the distance education courses of Massey University and the Advanced Studies for Teachers Unit, both based in Palmerston North. The Government "nags" the better qualified primary and secondary teachers a little now. This encourages these teachers to engage in further education programmes.

**The New Zealand Correspondence School**

The Correspondence School in Wellington is an important supplement to the New Zealand education system. It provides a distance learning programme based on the national curriculum for primary and secondary school children. Children in remote areas and children unable to attend a normal school because of mental, physical or social handicaps are required to enroll with this organization. At present the CS has approximately 2,000 full-time students enrolled.

Secondary schools which are short of teachers in specified subject areas are able to receive qualified teachers from the correspondence school. This provision enables the education system as a whole to function more equitably.

Children with particular learning difficulties are enrolled with the School's Individual Programme Section. The teachers in this section provide these learners with an individualized programme based on their assessed needs. A large number of adults also enroll with the correspondence student programme for "second chance" education.

**Discussion**

New Zealand's system of initial teacher education for primary and secondary teachers has always been conceived of in terms of full-time campus-based courses. Up to the present time, access to the teaching profession by way of a distance mode has never been seriously entertained. However, changes are immenent for the following reasons:

1. The full-time programme prevents certain categories of acceptable candidates from applying such as mature women with families living in areas remote from a training institution.

2. The full-time programme is expensive, and despite the efforts of the trainers, the course tends to be theoretical. There is a growing dissatisfaction with this programme and it seems inevitable that alternative pathways into the profession will be adopted.

In New Zealand, the problems inherent in the educational system appear to revolve around two central issues: cost-effectiveness and making education more accessible.

## PAKISTAN

Pakistan is a vast country spread over 310,403 square miles of both hilly areas in the north and west, and flat areas in the east and south. Almost 70 per cent of the population lives in scattered rural areas where the population density is about 106 per square mile (1986). This is part of the reason why the provision of equal facilities of education to rural areas has not been possible. In addition to this, the population growth rate is 3.1 per cent per annum. The total population of the country was 42 millions in 1951, while in 1988 it was around 110 millions. All efforts made to maximize educational facilities for achieving the target of universal primary education have been thwarted by the explosive growth of population. As a consequence, the participation rate at the primary school level stood at 50 per cent in 1960 and was around 63 per cent in 1988. In absolute numbers there has been a large increase in enrolments. For example, in 1960 only 0.35 million girls were attending primary schools. This number rose to about 3.19 million in 1988. The net increase in female enrolment during the last 28 years is about 2.84 million i.e. more than eight times while the enrolment ratio has gone up only by 15 per cent (1960 - 30 per cent; 1988 - 45 per cent).

Obviously the growing number of students requires more schools and more teachers. Although efforts were made to meet this challenge, in many respects the education system has not been successful in responding to the growing demand for teachers.

### Teacher training programmes

There exists a four-layer programme of teacher training in the country, the first level being the Primary Teaching Certificate (PTC). It is a one-year training programme for those who have completed their secondary education (ten years schooling) for qualifying as primary school teachers.

The second is the Certificate in Teaching (CT). It is also a one year programme and enrolls those who have completed their higher secondary education (12 years of schooling). For the first and second level training programmes there exist 71 teacher education institutions with an annual output of about 22,000 teachers both male and female. At this level the training institutions are separate for male and female teachers and are organized by the provincial departments of education.

The third level programme is the Bachelor of Education (B.Ed.). It is a post-graduate level programme and, therefore, it is organized and conducted either directly by different universities or through their affiliated colleges.

The fourth level programme is the master's degree programme in education. The minimum entry requirement for admission is a B.A. or B.Ed. (for B.A. graduates it is a two-year programme, while for B.Ed. graduates it is a one-year programme). This training is provided either in an institute of education and research or the department of education of a university. For third and fourth level training programmes there exist only 14 institutions with an annual output of about 2,500 teachers.

**Introduction of distance education**

As compared to the increasing school enrolment, the output of teacher training institutions is inadequate. The Education Policy of 1972-80 envisaged a proposal for the universalization of primary education within a period of ten years. It demanded a huge number of teachers which could not be produced through the conventional mode of operation. Hence, a proposal for establishing a distance education institution was envisioned in the policy document. The Allama Iqbal Open University (previously known as People's Open University) was, therefore, established in 1974.

The first teacher training programme launched by the University was the Primary Teachers Orientation Course (PTOC). This programme started in 1976 and by 1986, a total of 83,568 teachers were provided with orientation through this programme. In 1988, the university was offering seven additional teacher education programmes, namely, (i) Primary Teaching Certificate (PTC), (ii) Arabic Teachers Orientation Course (ATOC), (iii) Certificate in Teaching (CT), (iv) Bachelor of Education (B.Ed.), (v) M.A. in Teaching of English as a Foreign Language, (vi) Post-graduate Diploma in Arabic Teaching (PGDAT), and (vii) Post-graduate Diploma in English Language Teaching. The University has recently introduced a Diploma/M.Ed. level programme in Special Education through which the University plans to train 1,000 M.Ed. level teachers to cope with various handicaps these being visual handicap (1989), hearing impairment (1990), mental retardation (1991), and physical handicap (1992).

**Evaluation of the distance education programme in Pakistan**

In Pakistan, where the expenditure on education has increased 200 times since independence (1947), the establishment of a distance education institution is not only saving scarce national resources but it is also reaching a vast number of people who could not have received education through the conventional system. For example, the girls who on account of socio-cultural constraints cannot leave their homes, prefer to enroll in distance education programmes. In teacher training courses, half of the enrolment consists of female teachers. In other courses and programmes, the female ratio is not less than 35 per cent. Allama Iqbal Open University helps release the pressure of enrolment brought about by the rapid population growth. Although there exist 470 colleges for higher secondary and degree level education both in Arts and Sciences, only 10 per cent of the students graduating from high schools are admitted in these institutions. Today, most of those students who are not admitted in a college join the AIOU and receive higher education without leaving their homes and jobs.

**Problems and issues**

At present the AIOU has four faculties and 22 departments with a per semester enrolment of about 65,000-70,000 students ranging from the basic education level to post-graduate and M. Phil level programmes. Qualitative improvement, however, remains to be achieved.

The university depends heavily upon the services of formal system staff hired on a part-time basis. Most of them do not have expertise in distance education. They are however, provided with an orientation and/or short-term training through briefing sessions. Despite these, in many instances their performance is not up to the mark, but the university is quite helpless in taking any action, except not to appoint them in the next semester.

The study centres have been established in the formal educational institutions. As the person responsible for looking after the study centre is an employee of that institution, and is paid a meagre

honorarium for his part-time services, he lacks interest in monitoring the activities of the centre. The result is that the equipment supplied remains unutilized or at least underutilized.

In every course there are weekly or fortnightly tutorial sessions in the study centres, but attendance is not compulsory. Therefore, except in large cities, the attendance remains nominal. The university spends a huge amount each semester on this activity, but due to lack of students' participation in rural areas the tutorial sessions do not seem to substantially enhance the qualitative aspects of the programme, particularly in the remote rural areas of the country.

## REPUBLIC OF KOREA

### National provision for teacher education

Korean society has achieved a remarkable growth in its social and economic status during the last quarter of a century. The people's intense desire for education and personal improvement, widely recognized by the government, is perhaps Korea's greatest strength. To this end, education plays a leading role in her continuing growth. The disadvantaged groups of adults who missed educational opportunities at an earlier stage try to avail themselves of the second chance of learning to enhance the quality of their life either through the formal or the non-formal education systems.

In accordance with this trend, Korea has already recognized the need to improve and expand teacher education through the formal and non-formal education systems. Without the development of rigorous teacher education programmes, it is difficult to provide a sound basis for building up a highly industrialized and learning society.

### Distance education for teacher education

Traditionally there are two types of teacher education colleges in Korea. Teacher's colleges are meant to train elementary school teachers, while colleges of education train middle school and high school teachers. All teacher's colleges are nationally endowed. Both types of colleges offer four-year courses.

As an innovative model, the Korea National University of Education (KNUE) started in 1985, and has undertaken the comprehensive function of training and retraining teachers at all levels, from kindergarten to secondary school, so providing a firm basis for a national centre of education.

In addition to the conventional teacher education colleges, a distance education system for teacher training has been in operation since 1972.

The Korea Air and Correspondence University (KACU) works in close harmony with the formal system, particularly in the field of teacher education. The KACU has provided both pre-service and in-service courses for teacher development.

The early childhood education course concentrated previously on untrained teachers, while the elementary education course provided the opportunity to enhance the quality of elementary school teachers who had less than four years of college education. Annually over two thousand elementary school teachers participated in the teacher education courses of KACU.

**Programmes of distance teacher education**

Distance education in teacher education is an avenue to improve the quality of teachers as well as for enabling them to obtain higher educational degrees.

Through the programmes of training and continuing education, the KACU endeavours to promote the professional competencies of elementary school teachers. In Korea, distance education has been used extensively for teacher education programmes (both pre-service and in-service), and apart from its other target clientele, seeks to make up for education missed by them at earlier stages in their lives. Since attaining its degree granting status in 1981, KACU's growth rate has been remarkable. The total enrollment of teacher students reached around 30,000 in 1988. In addition to the meteoric rise in enrolment, the academic programmes have also grown dramatically.

These distance education programmes in teacher education provide the means for the professional development of teachers in isolated and remote areas of the nation.

**High-lighting problems for future development**

In Korea two different organizational models of distance education have developed from the early 1970's: the Air and Correspondence High Schools (ACHS), and the Korea Air and Correspondence University (KACU).

The ACHS system relies basically on radio broadcast lectures and evaluation materials prepared by an independent, specialized organization known as KEDI (Korean Educational Development Institute). On the other hand, the KACU is one complete entity where school administration and academic affairs are managed by a single staff under its own roof.

For better operation and quality control of distance education, there appears to be a need to integrate the two distance education systems with regard to their programmes, staff development, curriculum and course design. To create more useful educational roles, (i) The system and structure need to be made more efficient; (ii) Course syllabi and study materials need to have better designs; and (iii) Instructional methodology needs to be made more helpful and feasible for distance learners.

**In-service training for distance educators**

There are inadequate professional support facilities for the distance educators. The faculty members at the KACU and the broadcasting lecturers at ACHS are not well equipped with pedagogical knowledge, instructional methodological skills, and knowledge of curriculum design.

As a newly established institution, the Korea National University of Education (KNUE) has offered diverse in-service courses for teachers and educational administrators. For quality improvement of distance educators, the KNUE has the potential of serving as the main in-service training centre for distance educators both in practical teaching skills and theory.

## SRI LANKA

The necessity to find alternative and more innovative structures and techniques in teacher education has led Sri Lanka to evolve new approaches. The institutionalized system of teacher education already prevalent in the country had not been able to meet the increasing demand for qualified teachers by the expanding school system of the country. In 1980, there were about 45,000 untrained teachers serving at all levels. It is mainly to clear this backlog that other approaches were sought and it was felt that distance education would serve the purpose. Accordingly, a pilot project in distance teacher education was launched by the Distance Educational Unit of the Ministry of Education in 1982 and two regular professional teacher education courses for non-graduate untrained teachers in service started to operate from December 1983. The current institution in charge of the project is the Institute of Distance Education (IDE) which came into being with the establishment of the National Institute of Education in Sri Lanka in 1986. These courses were also devised with a view to forging greater integration between classroom teaching/learning sequences under the integrated primary programme in the elementary schools, and to prepare teachers who could individually teach both mathematics and science in the junior and senior secondary levels. The duration of both these courses is three academic years. The courses are, (i) an elementary teacher education course for teachers of the primary grades, (i.e., year 1- 6); and (ii) a mathematics and science combined teacher education course for secondary school teachers (i.e., year 77-11). Both of these courses consist of three main components, these being. professional education, general education and academic education. The two courses differ in their academic components, while the professional general components are common to both.

### Modalities

The distance education modalities developed for the two courses consist of (i) printed self-instructional material or the modules, (ii) assignments, (iii) contact sessions, (iv) district centres as local facilities, and (v) educational practice and school-based visits for supervision by tutors. The self instructional material is developed in the form of comprehensive self instructional modules. The entire information is presented in a structured manner. Exercises, examples and self assessment questions are incorporated into the structure. The format of the module is based on a sequence of learning phases and related to instructional events. Each module contains an assignment for submission. The assignments are corrected by the tutors attached to the district centres. The commented and corrected assignments provide the students with information as to how they have comprehended and mastered the module. This two-way communication brought about by the assignments is meant to fulfill two functions, cognitive and affective. Practice has proved that both are equally essential in distance education courses. However, if the turn-around-time takes a longer duration the outcome appear to fall short of expectations. Hence the IDE has now appointed correspondence teachers to help the district tutors to speed up the correction process of assignments. The self study activity of the student is regulated, controlled, structured, evaluated and motivated by these assignments.

### Contact Sessions

The term 'contact session' implies face-to-face meetings with the tutors. In Sri Lanka, the institutional areas of education have been strong, and it was felt that the self study process would bring in a considerable degree of a feeling of isolation to the students. Besides, the very first attempt at self study could also pose problems for the students. Contact sessions are meant to break the sense of isolation, facilitate and reinforce learning, and also build up and sustain motivation. Three types of

contact sessions are presently in operation in the two current programmes. They are the one day study circles which are flexibly arranged to solve the students' study problems, the two-day practical sessions, and the five-day contact sessions. The two-day practical sessions are held three times during an academic year to complete the practical components of the two courses of study. These contact sessions are held as continuous sessions during school vacations. They are broadly based and it has proved to be useful to the distance students to meet their fellow students and to engage in group interactive study procedures. Experienced during the past five years has demonstrated that this type of contact has been very popular among the students.

**District Centres (D.Cs) as local facilities**

D.C.'s serve as facilitating centres and provide a meeting place for the students to meet the tutors, and other fellow students. The students meet the tutors for guidance and counselling purposes, and hence a diagnostic and remedial function is also attached to the activities of the centres. The students collect their self study materials from the centre and deliver their assignments to be corrected and commented on. The facilitating function is performed mainly during the contact sessions which are conducted by these centres. These centres also maintain records pertaining to student progress.

**Educational practices and school based visits by tutors**

This aspect is considered to be a vital component of the programme. The tutors visit their students in school at least three times during an academic year. The purpose is to provide the self learner with on-the-spot guidance and advice where their actual classroom performances are involved. Educational practice embraces the entire student/teacher relationship in the school organization and community, and in this context, means much more than performance in the classroom.

Since the commencement of the Distance Education centres run by the IDE, these four procedural modalities have been in operation. Apart from the printed media, which has been the 'core' of instructional package a preliminary attempt has also been made to use other media. The use of audio cassettes has been popular at the district centres to facilitate group work and discussions. In the field of aesthetic education which comes in the common component, some progress has been made in the use of audio cassettes. In the district centres, the tutors have been instrumental in producing audio cassettes to suit their local needs, and some centres now provide listening facilities for enrichment purposes. It should be mentioned that this multi-media approach is still at the preliminary level and has gained priority for improvement in the future.

**Evaluation procedure**

Evaluation of student performance is done through two modes: continuous and final. Continuous evaluation is done through assignments. Final evaluation is done in two stages, by means of written/practical examinations as Part I and Part II. Part I is held midway during the course, i.e. after one and a half years of study, and Part II is held after another one and a half years, by which time the students would have completed their course of study.

Evaluation of educational practice on the whole is carried out in the schools where the students continue to teach. It is based on four areas, namely the professional growth of instructional proficiency, participation in co-curricular and social activities of the school, and the total personality development of the student. Evaluation is done on the basis of a pre-prepared rating instrument.

Those students who successfully complete the course- work as stipulated by the IDE, are permitted to sit the Part I + II of the final examination conducted in accordance with the criteria laid down by the National Institute of Education (NIE). Successful candidates are awarded the Trained Teacher's Certificate.

The programme of distance education organized by the IDE has now operated for five years. The first year of operation demanded a regular familiarization of the printed material as they were not used to studying through self instructional materials. Hence the district centres became popular. This has called upon the tutors to realize their tutoring task more earnestly. Regular seminars and training sessions were conducted in collaboration with international distance education experts to elucidate the tutor's role as a facilitator of learning, and for the IDE to realize its leadership role of conducting the programme. The IDE takes the initiative and responsibility and provides all the district centres with necessary information and guidance to run the programme in the regions.

Experience in the development and use of the distance mode has been encouraging. A large number of untrained teachers have already received a professional training under these two programmes; and about 5,500 untrained teachers are currently following the courses. It has been possible to reach schools all over the country, and it is encouraging to note that the self-study materials produced by the IDE are also received with enthusiasm by teachers who have not formally joined the programme. However, the use of the distance mode in teacher education has been mainly geared to meet the annual increase in the demand for qualified teachers in the school system. Specific teacher education strategies such as serving the needs of girls, disadvantaged groups and those living in remote areas have yet to be considered in earnest.

**Open University**

The training of graduate teachers through the distance mode is undertaken by the Open University (OU) of Sri Lanka. In collaboration with the Ministry of Education, the OU conducts the two year Post-graduate Diploma in Education. The programme consists of four courses during each year and teaching practice, all of which is compulsory. A choice of subjects is available for special methods of teaching. Practicals, discussion sessions, seminars, and workshops are also part of the programme.

**Future directions**

The educational reforms introduced over the last few decades have generally expanded the educational facilities, but this expansion is not universally related. Specific educational needs are now receiving increasing attention from the administrators as essential prerequisites to development. This has increased demand for more and more qualified teachers. The imperfections and inequalities that still exist between rural, remote and urban areas, and between advantaged and disadvantaged groups, call for teacher education tactics to cater to these specific problems. Important changes are taking place in the primary curriculum. Necessity has, therefore, arisen to retrain groups of teachers, such as the existing primary trained teachers to teach 'beginning science' in the primary schools. A majority of plantation primary schools have only one or two teachers, and they lack competency in teaching in a multi-grade setting. Improvement of their general teaching competencies is also important. The enrolment of these teachers through the two distance teacher education programmes has been minimal, since most of them lack the basic qualification to enter the programmes. Hence the practical

necessity has arisen for the DE teacher education programmes to cater to upgrade the quality of these teachers so that they could qualify to join the teacher training programmes. The teaching/learning situations in these underprivileged zones have to be taken into account when considering the directions for further development of teacher competencies for a multi-grade setting in remote rural areas. Development of educational and pupil evaluation materials to suit these settings, remedial teaching materials to suit slow learners in underprivileged areas, and supplementary materials for underprivileged schools are some of the important areas that the distance teacher education programmes could consider in their plans for expansion for future development.

## THAILAND

Formal teacher education in Thailand was undertaken for the first time by the Ministry of Education in 1928. Its main purpose was to prepare qualified primary school teachers and later on to prepare secondary school teachers as well. In 1928, Chulalongkorn University started a one year pre-service teacher training programme at the Faculty of Arts and Science and its graduates were qualified to teach in secondary schools. However, the mass production of school teachers really began in 1954 with the establishment of the Teacher Training Department in the Ministry of Education.

At present, there are different kinds of teacher education institutions with their own administrative bodies working under various departments and ministries. Within the Ministry of Education, the Teacher Training Department administers 36 teachers colleges located in different parts of the country. In addition, vocational and technical colleges, physical education colleges and drama colleges train pre-service school teachers in those subject areas. At least eight state universities also train teachers for all educational levels in every field of study. Moreover, two open universities offer many courses leading to a bachelor's degree in education. Therefore, teacher education is extensively available for teachers, school principals and educational officials in provincial offices. In fact, too many programmes of study are being offered to pre-service teachers and the teacher education institutions are being criticized for creating unemployment.

Paradoxically, there are still more than 40,000 in-service teachers without proper qualifications. To solve this problem, apart from taking evening classes at nearby teachers colleges, teachers in remote areas are able to upgrade themselves through distance education. The opportunity for self-study has been offered to all teachers for more than 30 years by the in-service Teacher Training Division (ISTTD), the Department of Teacher Training. At the beginning, conventional teacher training institutions could not cope with masses of unqualified teachers. So the ISTTD programmes were started for these untrained teachers. These institutions provide textbooks for self-study which are supplemented by a few radio programmes. The programme now offers two types of certificates; namely, a Certificate in Education and a Secondary Grade Teacher Certificate. The Bachelor degree in education was first offered by the Faculty of Education, Ramkhamhaeng University, in 1971. Nevertheless, the real distance education at University level was made available with the creation of the Sukhothai Thammathirat Open University in 1978. The in-service teacher training programme provided by ISTTD meets the needs of teachers in remote rural areas to improve their professional standard and chances for increased income. The enrolment fees are very low and the courses are flexible.

At present, the two ISTTD programmes are:

1. The Certificate in Education Curriculum (Cert in Ed.) which is equivalent to grade 12 or high school.

2. The Secondary Grade Teacher Certificate Curriculum (S.G.T.C.) which is equivalent to second year of bachelor's degree course in a university.

The subject requirements for the Certificate in Education level are two basic subjects, two cognates and one elective. For the S.G.T.C. level, the requirements are one basic subject, 1 to 3 cognates and sometimes one practical elective depending on the applicant's qualifications. The applicant has to get a total score of at least 50 per cent in each subject. Certificates are awarded when all the course requirements are met by the students.

The in-service teachers enrol in the ISTTD distance education by mailing the letter of application with a fee of 110 baht (US$4.0 approximately), for Certificate in Education level, and 120 baht (US$4.5 approximately) for S.G.T.C. level. Instructional materials for each level consist of self study textbooks, exercises, radio broadcast schedules (i.e. summary of radio programmes) and self evaluation exercises. Radio scripts and audio tape recordings of some difficult lessons are also supplied on request. Apart from the self instructional materials, the ISTTD also provides visits to strengthen teacher education through distance education. The ISTTD staff provides advance information and arranges visits to various provinces throughout the country twice a month, all the year round.

The enrolment of in-service teachers in ISTTD programmes is now decreasing every year as almost all school teachers have received training through this programme. The programme may have to be phased out in 1992 or reorganized to provide in-service training to teachers on a continuous basis.

## THE UNIVERSITY OF THE SOUTH PACIFIC

The University of the South Pacific (USP) was established in 1968 to serve the developmental and educational needs of 11 member countries: the Cook Islands, Fiji, Kiribati, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tavalu, Vanuatu and Western Samoa. These island nations are spread over 11 million square kilometres of the Pacific Ocean and have a combined population of about 1.5 million.

In carrying out its responsibilities, the USP was charged to be as unorthodox in its approach as necessary. In 1971, the USP rose to this challenge by way of its first distance education courses that were designed to meet a need expressed by member countries for teacher-training programmes. In 1974, the Extension Services, a semi-autonomous unit of the university, was established to provide instructional design assistance for an increased number of extension courses, and to administer the distance education programme of the USP.

Two overriding factors lie behind the development of the USP distance education programme:

1. **Distance**

a) The regional nature of the University means that it is responsible for catering to the needs of the 11 scattered island nations of the region. However, the main campus of the

university is located in Suva, Fiji, with the School of Agriculture based on the Alafua campus in Western Samoa.

b) Apart from Nauru and Niue, all USP member countries consist of a main island with the major urban centre, and several inhabited outer islands.

2. **Developing economies**:

This has the following two significant implications for USP:-

a) The majority of potential students cannot afford to meet the cost of higher education through private means. For all students outside of Suva and Western Samoa, taking up opportunities provided by the USP means meeting not only the cost of tuition but also of travelling to and from Fiji every year, subsistence for the duration of studies, and, for adult students, relocating families as well.

b) The workforce is characterized by a shortage of qualified and semi-qualified people, and teachers make up a large number of the workforce requiring further training. There exists, therefore, for these nations, the dilemma of, on the one hand the need to upgrade the qualifications of their workforce, and, on the other, the problem of there being a reluctance to release the much needed personnel.

The solution has been found to lie ideally in distance education through which programmes of study can be made available to many more people at a lower cost without necessitating relocation or resignation from jobs.

**Distance education at USP**

USP operates a dual mode system whereby academic staff not only teach in the conventional face-to-face mode, but also work with instructional designers at Extension Services to develop some of these courses in the distance mode. USP also operates a decentralized administrative system through a network of local USP Centres in all but one (Tokelau) of its member countries. Each of these is staffed by a Director, and in most cases, one or two lecturers, and support staff. Facilities available at the centre include: a modest library, classroom(s) and a multi-purpose science laboratory in a few centres. Communication and net-working facilities include: a mailbag service to and from Suva, a satellite communication system linking six of the 11 centres, use of high frequency radio linking three other centres to the USP network, and facsimile facilities in a few centres. It is hoped to set up an electronic mail system that would extend the use of satellite time available to USP.

**Major problems associated with the USP distance teaching programme**

About 40 per cent of USP extension students do not have access to the local USP centres. These are students located in the outer islands of member countries, those in the rural areas and towns situated away from the main urban area, and those in the peri-urban area of the centre who may be out of reach of a regular transport service to and from the centre. The priority task of the course development team at USP has, therefore, been to ensure that course packages contain and provide all materials necessary for the successful completion of a course, so as not to further disadvantage these

"isolated" students. These materials must also carry clear instructions on how students need to proceed through the various stages of the course.

The distance from the centre also affects the turnaround time for marking assignments and obtaining feedback from the course tutors in Suva. To offset this problem more and more courses are now depending on local markers based at the centres. Where possible writers are encouraged to assess students work through objective-type exercises that can be marked by staff at the centre with a marking guide. As a final option, disadvantaged students have the opportunity of extending their studies over two-semesters to accommodate delays in the system.

Some course writers lack an appreciation of local conditions and constraints under which students are expected to study. One of the tasks of the course developer as a member of the course development team is to provide this information to the course team and thereby ensure that there are realistic expectations of students by course tutors in the work they are required to carry out.

**Teacher education by distance at USP**

USP now offers 21 courses towards the fulfillment of the education requirements of the certificate, diploma and degree in education by distance. The four courses for the TESL certificate and Diploma in Educational Administration are offered only by distance and there is also a certificate for pre-school teachers offered at the continuing education level. These are largely in-service programmes although the TESL programme has provision for the exceptional student not yet inducted in the teaching profession. In addition the department of education has undertaken a postgraduate innovation for M.Phil. students, primarily through staff visits, satellite communication, regular feedback through correspondence and an annual intensive six week on-campus study programme.

For the few education courses which are yet to be offered through the distance mode, and for those which are required by students to complete their programmes of study, the USP also offers the summer school mode which is an intensive 4-6 week teaching programme conducted at the centres, usually during the end-of-year vacation period.

New education courses are currently being written for offering in the new year alongside the revision and upgrading of existing courses. As long as staff and resources permit, the trend to develop and upgrade in- service teacher education using the distance mode will continue.

**Other regional experiences in teacher education through distance education**

Besides the above regional experiences, there are a host of other programmes of a similar nature, in various countries of the region, which warrant a brief description. Some of these experiences may be summarized as follows:

1. **Australia**

Australia has the longest and perhaps the richest experience of operating distance education programmes of any country in the region. Introduction of distance education in Australia was necessitated by unique geographical characteristics of the country, with large areas of land and an unevenly dispersed population mostly along the coastal regions of the country. The correspondence schools and 'Schools of the Air' provide education at primary and high school levels. The 'schools of

the air' supplement correspondence courses at the primary level, while the schools of the air provide a unique opportunity to students and their parents to 'talk' to the teachers at a distance and thus reduce the turn around time which delays monitoring and feedback. The programme is also supported by itinerant teachers who visit isolated families and provide them with assistance in their studies.

Some of the other programmes of relevant interest are the ISMS (Isolated Students Matriculation Scheme) and the graduate and post-graduate studies programmes of the Darling Downs Institute of Advanced Education. The Darling Downs Institute provides the unique opportunity of teleconferencing which generates simultaneous discussion both among the students located in different parts of the country as well as with their lecturers. These telephone tutorials ensure two-way communication and provide instant feedback as well as enhanced personal contact and effective relationships between the teachers and the students.

Pre-service teacher education is provided through distance education by some universities and colleges of Advanced Education. The teacher education programmes are offered both at the degree and post-graduate levels. The predominant mode of instruction is the well-researched learning packages comprising of printed materials, self-learning activities and exercises. This widespread infrastructure for distance education in the country has paved the way for further experimentation and research as well as for the development of modals and innovative strategies which may also be adopted with suitable modifications by other countries of the region. These modals and strategies can certainly help the other distance education institutions in the region to reach their disadvantaged groups such as girls and those living in the remote rural areas of their respective countries.

2. **India**

India's experience in distance education dates back to the early 1950's when radio was used to enrich the formal school education programmes. With the introduction of television, T.V. programmes were also launched to support classroom teaching. Two and one half hours were allocated each day for education on the SITE (Satellite Instructional Television Experiment) system. Both the students and the teachers have benefitted immensely from these programmes. Distance teaching programmes are also offered at school and university levels. At present about 25 Universities offer correspondence courses at graduate and post-graduate levels, including B.Ed. programmes. The distance education programmes received an institutional basis when the first Open University was started by the state government of Audhra Pradesh in 1982. An Open School has also been established for learners at the secondary level. These programmes also upgrade the teachers who are engaged to serve the system as writers, tutors and part-time personnel.

Since 1966, specific teacher education courses are being launched through the four regional colleges of education. These colleges provide correspondence courses and summer school programmes for the in-service training of teachers. Thousands of untrained primary and secondary level teachers working in schools have received B.Ed. degrees through a media-mix comprising correspondence packages, summer schools, teaching practice and assistance from the guides who are engaged by these colleges on a part-time basis. The students also complete a set of assignments involving studies on classroom problems and surveys of various aspects of school and community.

The National Policy on Education Programme of Action 1986 clearly indicates that a distance learning system "augments opportunities for higher education, ensures access, is cost-effective and promotes flexibility and an innovative system of education." Ever since the establishment of the Indira

Gandhi National Open University in 1985, the distance education system has received a firm commitment at the national level. Realizing the need for strengthening capabilities of distance education personnel, Indira Gandhi National Open University launched a Diploma Course in Distance Education in 1987. This opened a new avenue for working teachers and graduates to adopt distance education as a career with sound professional training in the field.

### 3. Nepal

The unique geographical characteristics of the country have impelled the policy makers and planners to conceive and launch distance education programmes for various levels and subjects. The predominantly mountainous nature of the country with vast tracts of remote areas that are inaccessible by conventional means of transportation has provided justification for experimenting with distance education programmes. Particular emphasis is being laid on teacher education at primary level as more than 50 per cent of teachers working in primary schools were still untrained in 1985. It was recognized that the training of primary school teachers should assume the highest priority as it provides the foundation for a viable system of education which can reach the people at the grass roots level. A project known as RETTP (Radio Education Teacher Training Programme) was launched in 1978. The Project was jointly supported and co-ordinated by the Ministry of Education and Culture, the Radio Nepal Section of the Ministry of Communications and the Institute of Education. The methodology of the programme included self-instructional packages, using the medium of radio and periodic workshops for the practical component. Over 25,000 battery operated radios were supplied to teachers on a loan basis, an adequate number of batteries also being provided for the period of training. The programme emphasized necessary knowledge, skills and attitudes and also covered topics of a more general nature. All of these were aimed at increasing the efficiency of teachers in remote rural areas to discharge their curricular responsibilities in an effective manner and also to serve as an agent of community development in their respective areas. Based on this experience at the primary teacher education level, it was also intended to continue the programme for teachers at the lower secondary levels (grades VI-VII). In order to maximize the efficiency of distance education personnel, acute need has been felt for their training in a distance education system. Similarly the field supervisors also need to be trained to enable them to perform their responsibilities more efficiently and diligently.

### 4. Philippines

In the Philippines, distance education is used at three levels, these being: secondary, teacher education and non-formal education. The secondary level programme helps elementary school graduates, who have no opportunity to join a high school, to continue their secondary education through distance education facilities provided by the Distance Learning Delivery System which was started in 1983. The Philippines University of Life conducts programmes for adults and out-of-school youth in various crucial skills of productive nature. Similarly the Project SLIMM (Self-Learning Integrated Modules for Mothers) assists mothers in realizing the potential of their pre-school children and preparing them for joining a nearby school when they reach the appropriate age.

In the field of teacher education, the Baguio Vocation National School (an in-service teacher education institution of the Ministry of Education, Culture and Sports) runs a programme known as CET (Continuing Education of Teachers). The C.E.T. programme covers all important subjects which are taught at the school level. Instruction is conducted through self-instructional printed materials, audio cassettes and study forums conducted by the course facilitators according to a regular schedule. Through the programmes of the University of Mindanao on the Air (U.M. Air) teachers in remote

areas are able to obtain a Master's degree. The UM-Air system has its own broadcasting network with various radio stations located on the island of Mindanao. The UM-Air follows the distance education methodology whereas the syllabi and examinations are the same as those used for the on-campus students. This ensures complementarity standards between the two systems operated by the university.

**Conclusions**

The experiences with regard to distance education in teacher education vary much among the participating countries. Some distance education programmes in teacher education have been operating much longer than others, and have, therefore, generated a number of innovative strategies and exemplar materials. However, even the recently created institutions have initiated modest, yet unique, modalities to share with other countries in the region. The exchange of experiences of a variety of institutions created to meet the needs of teachers through distance education has been found to be very profitable; and the indigenous modalities initiated by various institutions have opened new vistas for experimentation among the participating members. It is widely agreed that the main thrust in future operations should be focused on meeting the needs of teachers for the disadvantaged groups, particularly girls and those living in the remote rural areas of the countries of the region.

## Chapter Two

## REACHING TEACHERS OF THE DISADVANTAGED

In any scheme designed to benefit the community as a whole, there will always be imbalances in the distribution of these benefits unless the programme is efficiently planned from the inception stage. Thus, in education, it is the city people, the wealthy, and those of the dominant culture who benefit more from the system than those who are poor, who live in remote areas or whose beliefs or values differ from the mainstream culture.

In some countries, it is not merely a case of some getting less education. It is more serious than that, especially in countries where girls, children from disadvantaged groups and those living in remote areas, as well as slum communities, are deprived of primary education. In many countries, schools may be available in remote areas, but they are staffed by untrained teachers who are not able to provide quality education. And it has not been easy to upgrade them as they are too far away from conventional teacher education institutions. Fortunately, in many countries these teachers can now be reached through distance education.

Strategic development tasks refer to carefully chosen jobs aimed at addressing crucial societal problems which are expected to have a significant flow-on effect on socio-cultural and economic progress. Solving the problem regarding non-enrolment in the formal or non-formal education systems of the disadvantaged groups is viewed as the lynchpin of development.

### Disadvantaged groups

The nature and extent of "disadvantageness" varies from country to country. Identifying the particular character of a disadvantaged group a crucial step in planning educational assistance programmes designed to meet the needs of the disadvantaged.

Briefly described below are some of the common categories of disadvantaged groups:

1. *Female populations*. In some socio-cultural settings, boys are sent to school, and girls are made to stay at home, since girls are to be married away, while boys are expected to form a major part of parents' old- age insurance.

In a few countries, socio-religious related restrictions prevent the enrolment of girls in the formal primary school system, especially in the absence of female teachers. In some cases the problem of security with regard to girls leaving their homes each day to attend school creates problems and hinders equal participation of the female population, especially at early stages of schooling.

2. *Remote rural dwellers*. In many countries, sparsely populated areas do not have schools for non-formal education centres which are easily accessible. And, if accessible, in general the school calendar and class times are rigidly set. There is usually no provision to allow children to help out on the farms during the planting and harvest seasons. Likewise, class hours generally coincide with working hours on the farms.

3. *Poverty stricken*. In many countries a sizeable portion of the population is living in absolute poverty. It is a must for their families that children help out on the farm, shine shoes, beg on the

streets, sell cigarettes, flowers, newspapers, and scavenge garbage, to help the family survive. Obviously between schooling and staying alive, the latter takes precedence.

Poverty stricken parents are invariably those who are uneducated, illiterate, and who do not appreciate the value of education, either for their own amelioration or in the making of a better future for their children.

4. *Handicapped*. There has been a divergence of views as to whether the handicapped should be viewed as coming under the purview of the disadvantaged groups. Some participants felt that this group needs special education, in that in addition to educators, other specialists (e.g. medical doctors) need to be involved in the education and rehabilitation of these children.

5. *Nomadic people*. In many countries, there are still many nomadic tribes who are dependent on shifting cultivation, and in some cases on hunting and fishing. Some tribes also shift from one place to the other in extreme weathers. In many countries, there are not enough mobile schools set up to cater for the needs of these children.

6. *Refugees*. Refugees are found in a few countries in the region. They and their children also constitute part of the disadvantaged groups. Despite the fact that a certain level of education is a pre-requisite for settlement in another country, refugee education has not occurred in a big way.

7. *Slum dwellers*. For children in urban slum areas, the school may be physically accessible, and yet they cannot take advantage of schooling. In many countries, slum dwellers are invariably squatters, and are not duly registered in the community. Consequently, they are unable to enrol their children in the public school system. In some cases, this also holds true with the children of migrant construction workers who do not have a permanent residence in the area of school jurisdiction.

8. *Socio-culturally deprived*. Prominent in this category are cultural minorities, also referred to as ethnic communities, or tribal groups. Children in this group tend not to succeed in the school system, where the dominant culture is the basis of the norm of behaviour. In some cases cultural minorities themselves tend to withdraw from the mainstream culture in order to protect their identity as a group, and toward off chances of amalgamation in a majority group which often leads to their ultimate extinction as a unique cultural entity.

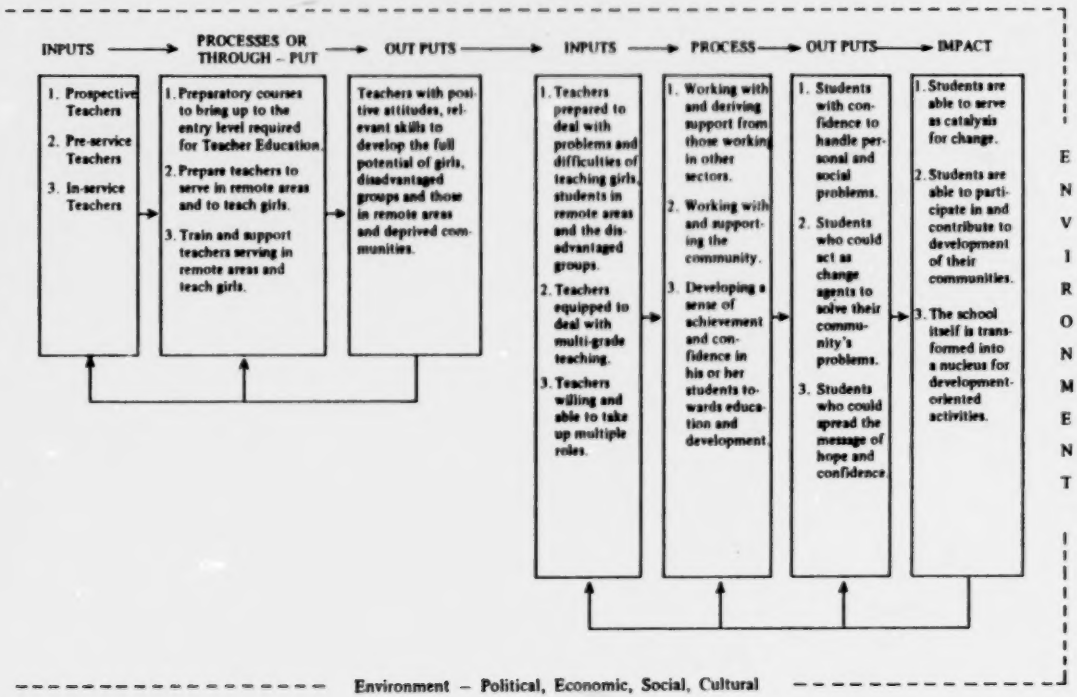
9. *Victims of inadequate schooling*. In some countries, especially where primary education is compulsory and free, parents do try to send their children to school. However, for a variety of reasons, children drop-out long before they complete primary schooling. First, the school curriculum is irrelevant to their needs. The curriculum and textbooks are usually developed at the national/federal/provincial centres, with very little consideration, if at all, to the local needs and problems of the remote rural areas, as well as those in slum communities. Second, teachers who generally belong to different school echelons, or if from the deprived areas, have already been co-opted to different socio-cultural values and behaviour standards, unknowingly turn off innocent children, and hence add to the number of early school-leavers. Teachers with inadequate training and very little appreciation of early childhood psychology impose strict disciplinary norms and scare children who are already least motivated to continue education because of their unique family circumstances. This group has no way back to formal schooling while facilities for the education of out-of-school population remains a dream of the future in these communities.

**A systems model**

In order to visualize the focus of the Workshop, the attached conceptual model was developed (See Figure 1). In the conceptual scheme, the main focus of the Workshop is on the *process*: that is, on alternative distance education strategies for (i) the education of pre-service teachers, (ii) upgrading of untrained teachers in remote/slum areas, (iii) in-service training of teachers working in disadvantaged and/or remote, as well as slum communities.

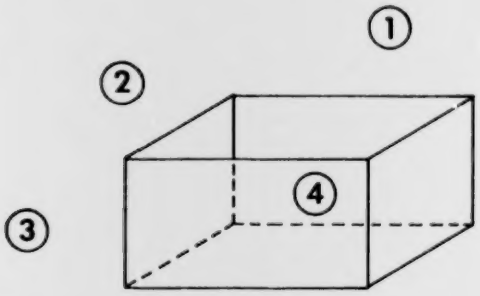
However, *process* cannot exist in isolation. It must be developed in the context of a socio-economic framework in general, and within the educational system in particular. Process must also be linked with the *inputs* (such as, teachers to be educated, to be upgraded) as well as those to be provided with opportunities for professional growth. It must also be linked to the *outputs*, in this case teachers who are able and willing to help harness the potential of girls, disadvantaged groups and those living in remote areas and slum communities. Lastly, it must be linked to the *impact* or ultimate goal: that is, the development of young people from disadvantaged groups who could participate effectively and profit most from economic and socio-cultural development, as well as to earn social recognition for themselves.

**Figure 1. All Open Systems Model for Distance Education in Teacher Education: Strategic Development Tasks to Meet the Needs of Disadvantaged Groups**


INPUTS
PROCESSES OR THROUGH - PUT
OUT PUTS
INPUTS
PROCESS
OUT PUTS
IMPACT
1. Prospective Teachers
2. Pre-service Teachers
3. In-service Teachers
1. Preparatory courses to bring up to the entry level required for Teacher Education.
2. Prepare teachers to serve in remote areas and to teach girls.
3. Train and support teachers serving in remote areas and teach girls.
Teachers with positive attitudes, relevant skills to develop the full potential of girls, disadvantaged groups and those in remote areas and deprived communities.
1. Teachers prepared to deal with problems and difficulties of teaching girls, students in remote areas and the disadvantaged groups.
2. Teachers equipped to deal with multi-grade teaching.
3. Teachers willing and able to take up multiple roles.
1. Working with and deriving support from those working in other sectors.
2. Working with and supporting the community.
3. Developing a sense of achievement and confidence in his or her students towards education and development.
1. Students with confidence to handle personal and social problems.
2. Students who could act as change agents to solve their community's problems.
3. Students who could spread the message of hope and confidence.
1. Students are able to serve as catalysts for change.
2. Students are able to participate in and contribute to development of their communities.
3. The school itself is transformed into a nucleus for development-oriented activities.
ENVIRONMENT
Environment – Political, Economic, Social, Cultural

**Alternative conceptual framework**

An alternative conceptual framework is illustrated below:



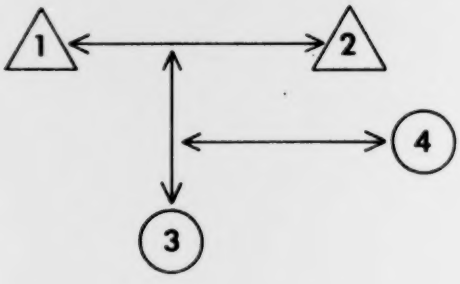

Where 1 - represents teachers who are:
- in-service (qualified and unqualified)
- pre-service

2 - represents learners who are:
- girls
- from disadvantaged groups
- from remote areas
- from slum communities

3 - represents support system, that is communication technology/media network, printing and dissemination facilities, study centres, academic/administrative infrastructure, community support

4 - stands for the whole box - the outcome of the interaction between (1) and (2) and facilitated by (3): a society with teachers who are able and committed to harnessing the potential of young people who are disadvantaged; and ultimately citizens who participate in and profit from development, and who earn social recognition for themselves.

The relationship of the three variables (i.e. teacher, student, and support system) is illustrated below:



Education flows from the distance education. teachers to the disadvantaged students, and that the teachers communicate with the students in various ways.

Even in a distance education mode, effective dialogue between learners and teachers, although more difficult, is crucial. Besides the content of subject matter, and personality of the teachers and learners, one has also to contend with transaction at a distance through the communication media. Hence, the support system is a very important variable in teacher education using distance education. This includes materials development and distribution facilities, and transmission media such as correspondence, radio, television, telephone, computers and satellite.

## PROBLEMS AND ISSUES

There are a number of problems and issues that need to be resolved for the development of alternative strategies for teacher education through distance education. Among the strategies are the problems and issues related to (i) access, (ii) relevance, (iii) equity, (iv) professionalism, (v) development of teaching skills, (vi) networking, (vii) development and production of materials, (viii) dissemination of materials, and (ix) evaluation.

The pages which follow discuss the nature of the problem, existing experiences of the region and proposed strategies for overcoming these problems.

### 1. Access: reaching out to teachers in remote areas

Three categories of teachers make up the potential target groups of teacher education through distance education in Asia and the Pacific, namely, (a) unqualified and underqualified teachers, (b) trained or semi-trained teachers, and (c) those who received formal teaching qualifications long ago but who never found an opportunity to upgrade and refresh their knowledge since their initial training and induction in the profession. Distance education programmes are, therefore, predominantly geared towards meeting these broad categories of needs through credit programmes aimed at providing teaching qualifications, and through non-credit, continuing education programmes designed to periodically upgrade and update the quality of teaching of qualified and trained teachers.

**Problems of access**: For teachers in remote areas, however, the problem of the accessibility of these programmes is still a major obstacle for many. For the Asia and Pacific region, the many facets of the problems can be listed as follows:

1. Lack of awareness of existing opportunities for gaining teaching qualifications through the distance mode. The farther away the teachers are from the teacher education institutions, the greater is the likelihood that they are beyond the reach of the popular mass media (except perhaps radio) in areas characterized by inadequate and irregular transport and communication systems. It cannot, therefore, be expected that they will be reached by normal channels of communication and so to a significant extent they continue to remain uninformed and unaware of the existence of these programmes.

2. Prohibitive cost of studying. Although distance education is a markedly cheaper mode of education than many of the other methods available, for many untrained teachers who are being paid salaries at lower rates as under-qualified teachers, the extra cost for training is beyond their means.

3. A number of prospective students lack the confidence to undertake self-learning study programmes, because of (a) the lapse of a number of years since their initial qualifications, (b) they lack adequate entry qualifications, and (c) they do not have any or sufficient knowledge about studying at a distance. The resulting reluctance to undertake distance education studies can, therefore, be related to feelings of a personal inadequacy to cope with a new mode of learning to which they were never accustomed.

4. Distance education is also perceived by many as being second rate education and, therefore, does not ensure parity of qualifications with those offered by conventional institutions. A popular belief prevails that conventional classroom methods with their strong edge for interaction cannot be qualitatively replaced by unorthodox distance education strategies of independent study in 'exclusion'.

5. The broadcast medium has been popularly used as the medium for non-formal instructional programmes because it has the capacity to teach people living in very remote areas. However, a major shortcoming of this medium is its inflexibility in that it does not provide a second opportunity of access to some of the programmes that may be missed because of students' pre-occupation with their important personal pursuits.

6. For non-credit continuing education programmes, there is the additional reluctance by teachers to avail themselves of opportunities because of the lack of a related reward system. These programmes depend largely on students' personal need for, and motivation towards, upgrading their knowledge of content and teaching strategies.

**Strategies for improved access**: The multi-faceted problem of access, by its very nature, is obviously one which cannot be successfully tackled by an educational institution alone. Because it is one that has implications for national development, the most successful solutions will be those that have the backing of government policy and include government initiatives.

1. In so far as networking information down to remote, previously barely reached areas is concerned, promotional efforts by media agencies and government are needed to ensure that remote communities are reached and properly informed about these programmes.

2. Until such time as this recognition is accepted and operationalized by the countries concerned, the institution must rely on existing communication and information infrastructures to disseminate its own promotional and awareness programmes and make maximum use of them. Many Asian and Pacific countries, for instance, have well established district offices at the local level through which the names of potential students can be made known to the distance education institutions, so that the dissemination of information can be targeted directly to them.

3. Most countries operate systems of full or part financial support for needy students. Efforts must be made to channel this support to needy teachers studying at a distance, and to offset the cost implications for poorly paid untrained or semi-trained teachers.

4. In the area of confidence building, distance education programmes in teacher training ought to begin at appropriate levels of education, so that cognitive and study skills challenges are brought within the capabilities of the study groups. Study materials must carry clear instructions to students not only on the course but also in terms of various

stages of progress through the course. Support systems by way of tutorial sessions, multi-media approaches, and study groups need to be strengthened so that all apprehensions about studying alone and independently are dispelled.

5. A counselling service offered by the distance education institutions can also help in acquainting potential distance education students with the requirements of the distance study programmes. For those countries with many scattered and remote communities, providing this service will be limited by resources available to the distance education institutions. However, it is posited as one of many ways which would enable the institution to reach as many remote students as possible.

6. Motivation towards taking advantage of training programmes available in the distance mode can best be achieved by moulding the perceptions of the students towards foreseeable benefits. These can be in the form of salary increases, promotions, and better jobs within the field of education. To non-credit programmes aimed at qualified and semi-qualified teachers, certification of completion of programme can be recommended towards increased eligibility for promotion, new jobs and pay increases. This strategy, however, requires the co-operation of national policy makers and planners with regard to adopting implied changes in the regulations and procedures governing the employment system of the civil service.

7. In an open university system of distance education, parity of quality of education with that of conventional institutions is fully demonstrated because courses are generally written by contract writers with adequate qualifications and varied experiences. Engagement of full time faculty members working in conventional universities as writers can lend the same credibility to distance education courses as would authors with renowned credentials. Pledged tutorial visits by well-qualified personnel may well remove the skepticism about the comparative quality of distance education systems which currently inhibits involvement of potential students with exceptionally distinctive academic records. Once enrolled, the students must be provided with evidence in the course materials of quality learning and assessment opportunities that provide a satisfactory quality education by distance. For dual mode institutions offering courses in two modes simultaneously, parity of quality is achieved by ensuring that the content coverage of both modes is the same and that learning opportunities are as equal as possible, given the constraints of either mode. In quite a few instances the distance education mechanism has been characterized by delays and a breakdown of communication. In trying to limit the feedback turn around time for distance students, the course co-ordinator may find it feasible to elicit student response on various assignments through multiple choice options which can be marked by the tutor at the study centre and returned to the students as quickly as possible.

**2. Relevance: Meeting the needs of teachers**

The problem of making distance education programmes relevant to the *real* learning needs of the target groups has attracted the attention of distance educators all over the world. The ultimate clientele of distance education programmes requiring special attention are girls, disadvantaged groups, and those living in remote rural areas in the countries which have not yet fully developed. These disadvantaged groups also include persons with physical disabilities and those who are least motivated to continue education in a formal setting, besides cultural minorities, and isolated ethnic groups. How

are these people to be mainstreamed in the process of development, except through education? The mechanism of providing relevant teacher education which ensures appropriate opportunities for the education of disadvantaged groups in the shortest possible time, therefore, warrants serious consideration. The learners in the distance education system more often than not are persons who want to solve one or many of their problems by pursuing activities or interests which should result in the change of their lives in the manner anticipated by them well before their initial exposure to the distance education programme. The real challenge for the distance education planner lies in the fact that he has always to generalize the entry behaviour of a clientele with varied backgrounds living in isolated locations, who may never find the opportunity to come into face-to-face contact with him. Most distance learning systems are open systems and entry behaviour of the clientele in these institutions is bound to be divergent. Where entry requirements are specifically stated, there too one may come across a lot of differences in the level of readiness of teachers, and their capacities to independently take up the courses which place a lot of responsibility on their part.

As the study materials offered by distance education institutions are standardized on a national norm, teachers from the disadvantaged areas find it difficult to follow these materials. Catering to the needs of these teachers is complex as the nature of their difficulties may substantially vary from area to area. The content matter of the courses may not be related to the local context, the methodology may be too advanced, or the clientele may lack current background knowledge which is deemed necessary by the organizers to follow the course. There is also the question of language style and presentation which bothers many students of distance education programmes. The formulation of objectives and development of course content must, therefore, always depend upon the possible 'motives' which have attracted the students to the programme rather than upon the conventional subject classifications to which the experts are more accustomed because of their training and experience. If the distance education planners are not careful in anticipating *real* needs of the expected clientele, they may fail to design programmes of studies most needed by the clientele. The question of relevance is inextricably riveted to the unique aspirations and demands of the clientele as well as the question of their geographical dispersion, socio-cultural differences, ethnic affiliations and economic disparaties. The more we understand the intensity of these critical forces, the more likely are we to design relevant programmes of studies for a wide variety of clientele.

When applied to teacher education programmes at a distance, relevance should imply consideration of subtleties in designing programmes of studies most suited to the differential needs of teachers serving in a variety of situations. At the basic education level, it is the female teacher who is more in demand because of recent political commitments of the governments to ensure equity in terms of gender considerations. These female teachers are to be equipped to meet the demands of expanding school enrolment in remote rural areas of the societies in which they operate. The financial squeeze on the other hand does not allow the provision of one teacher per class, hence the need to train teachers with necessary skills to efficiently operate in multi-grade and multi-disciplinary situations which are so vivid in a typical remote rural primary school in the countryside. Because they are the only educated person in many rural settings the teacher is looked upon to provide a leadership role not only in a school situation but also in meeting a variety of community needs ranging from health and hygiene, sanitation and cleanliness, mediation in local conflicts and interpretation of government policies and procedures to political training and citizenship. Since all these roles have to be played by the teacher simultaneously, it requires the ingenuity of a real educational planner to design a package of distance education activities relevant to the needs of both the teacher as well as the society which inducts him into the profession, as a catalyst to respond to the needs of the ultimate clientele of disadvantaged children living in the far-flung rural areas of the developing countries.

The critical problem for the designer of teacher education programmes at a distance, therefore, lies in the fact that he or she is responsible for producing a multi-media package of studies well before the actual admission of these teachers in the programme. It requires skills of analysis of the existing situation as well as a futuristic perspective to design a programme of this nature. Strategies required to ensure relevance will have to be varied, keeping in view the exact demands of the clientele anticipated to enrol in the programme.

**Strategies for strengthening relevance in teacher education at a distance**

The following strategies may form the basis for building in relevance in the distance education programmes:

1. *A preparatory or foundation course* to be taken up before proceeding to the intended course, to deal with the current background knowledge of the teachers to ensuring their readiness to start with the course materials.

2. Making extra *remedial materials* available to the teachers under training as and when deemed necessary. This material should be related to the rural local context of the teacher. Basic worksheets to be completed, readings to be done, and audio and video lessons that will remedy their initial drawback to follow the course, should be made available to the individuals who require them most. These materials would also serve as motivation to join and continue the programme.

3. Preparation of *extra study guides* by the tutors to be made available to students who find their way difficult in the standardized tests. The materials so designed should not be based on a linear approach, but should allow for branching to meet the unique and varied needs of individuals and groups.

4. Availability of a *counselling service*. A counselling service should be started to go through the bio-data of the new students individually, and to advise them to undertake preparatory courses, wherever this is deemed necessary. The system of providing preparatory courses as part of remedial work should be institutionalized. Institutions should also prepare 'personal support curricula' for individuals with extreme problems of a unique nature.

5. *Tutorial services*. Availability of a tutor to personally clarify study difficulties in specific areas needs to be ensured. The tutors in the rural areas should visit the students at their work place from time to time to clarify and guide the rural students in study difficulties wherever these occur. A tutor also be available on students' special request when a problem of proceeding with the study material arises.

6. Study materials to be *elaborately designed and illustrated*, linking the content to local conditions, so that the constraints of the rural teacher in understanding them are taken into special consideration. The first part of the material could contain a few steps for additional remedial work, in the form of extra examples and elaborations, so that any difficulties in comprehension of the materials can be minimized. Research studies conducted to find out the difficulties experienced by the rural learners should guide the course writers to design their materials accordingly. Experience in the region has shown that distance education institutions in some countries tend to produce experimental

packages which are tried out on a limited scale before their wide scale adoption by distance education institutions. Such a process ensures improvement of materials both on the criteria of relevance and suitability, as well as pedagogical considerations, which are so essential in an operation of this nature. Even after the pilot launching of the programme, the process of formative evaluation continues alongside different course cycles and results of this evaluation are systematically fed to the programme so as to form the basis for continuous improvement of the learning packages. This evaluation is carried both formally, by providing a feedback mechanism in the learning package, as well as informally through discussion during the contact sessions and practical workshop activities.

3. **Equity: improved services for the untrained teachers**

Although the teaching profession calls for adequate knowledge, specialized skills, and relevant attitudes, it appears that large numbers of teachers serving in many countries of Asia and the Pacific region do not have the educational background to take part in the most basic of teacher training programmes.

For this reason, teacher education must give priority to strategies designed to bring teachers up to the necessary level of qualifications considered as a suitable pre-requisite to enter the existing teacher education courses. The problem is most acute in remote rural areas where facilities are extremely limited or non-existent.

The following strategies involving distance education are presented as suggestions to help educational planners deal effectively with this problem:

1. The provision of simple introductory distance education courses as a pre-requisite in school level programmes.

2. The provision of incentives to learners who achieve satisfactory results in such elementary courses.

3. The provision of specially prepared course materials for children in all subjects. These materials should be supported by suitable guidance material for use by the children's parents or supervisor.

**School subjects at a distance**: Some countries such as Sri Lanka provide tuition at primary and secondary levels only through the conventional face-to-face mode. A child who drops out of the school system before acquiring basic secondary school qualifications is faced with the problem of obtaining the minimum qualifications for entry into the formal teacher training programme. One solution to this problem is to set in place a distance learning programme for school subjects. For example, New Zealand and Australia have a long tradition in correspondence tuition in all subjects of the school curriculum at both the primary and secondary levels. In New Zealand, any adult who has dropped out of the school system before acquiring school certificate or university entrance examinations is generally accepted by the Correspondence School (and also other class-contact secondary schools) for courses of tuition in preparation for important school-level examinations. The New Zealand Correspondence School has, in recent years, also made available its course materials and tuitional support to secondary schools which experience teacher shortage in some subject areas.

Although the teacher unions and government favour the presence of fully qualified subject teachers in secondary classes, there is no evidence at hand to suggest that students studying through correspondence don't perform as well in examinations as do those who are taught through formal contact by qualified subject teachers.

Governments concerned with equity would be well advised to consider providing school level courses by the distance learning mode. These course materials could also be used to teach selected target groups such as untrained teachers. Distance learning, especially where large numbers of students are concerned, gives the best value for money. If proper approaches are made to the New Zealand and Australian Governments, exemplar materials and professional advice may be made available at a modest cost to the enquiring developing countries.

**Providing incentives**: Most countries pay more money to the better qualified teachers. To improve the standard of teaching to those working with the disadvantaged, governments in developing countries may consider providing suitable increases in pay scales to those untrained teachers who are prepared to improve their academic skills and knowledge.

**Resource materials for disadvantaged**: In the final analysis, it is the disadvantaged child, for example, the girl in the remote area in a developing country, who is capable of making a considerable contribution to her community, that must receive our greatest attention. In the absence of a teacher trained to a standard that would normally be desired, other cost-effective alternatives should be considered. First among these alternatives must be the development of structured self-instructional materials based on topics in the national curriculum but designed to appeal to specified socio-economic groups.

Teachers' guidance notes should be written to stand alongside such materials to assist those helping the learners. Again, the Correspondence School in New Zealand has taught successfully in this way for many years. The parents of children in remote areas of New Zealand are given a great deal of support at a distance in providing what generally turns out to be an education equal to that provided through the state class-contact system.

It is interesting to note that the Indonesian education system has also recognized the potential of this system. As reported in the Regional Seminar Report on Distance Education of August 1983, held at Islamabad, one of the PAMONG systems involved the development of course materials for use in informal settings: for example, peer tutors, parents, and teacher-supervisors. At the time of writing, no information was available on the success of this approach or how extensively it was being used. However, it must be pointed out that this system, from a theoretical standpoint at least, has much to commend it in taking education to the disadvantaged.

Some of the key reasons for this are as follows:

1. **Guidance to those who help**: Often the parents and community leaders of disadvantaged groups have a will to help their young, but they do not know where to start, nor how to proceed. Now that distance education has come of age, there seems to be few financial reasons why governments seriously concerned with equity should not be channelling resources into this area of development. All the government needs is the guidance of a country experienced in this procedure, tempered by information from people familiar with the disposition of the target population.

2. **A practical means for teacher education**: All too often, teacher education programmes can be too theoretical and removed from the practical experiences of life. The theories of learning and of teaching have little meaning to practical people, at least in the first instance. Generally, it is better to prescribe what is to be taught and how it is to be taught and then allow the teacher to learn effective teaching practice by experience.

3. **A resource for the "trained" teacher**: It is not a sound assumption that teachers with the appropriate examination passes automatically become good teachers. Good natural teachers, even in developed countries, are not a common phenomenon. Printed instructional materials for children that incorporate effective learning principles can provide a most valuable resource and guide for practising "trained" teachers. There is probably no short cut to continuously upgrade and enrich the working in-service teachers if the education system is determined to provide equitable opportunities for education to the disadvantaged groups of their population.

4. **Professionalism: bringing practising teachers up to date**

Many developing countries of the region today are facing the problem of a shortage of trained teachers. The gravity of the problem increases when we look at it in the perspective of already trained teachers who obtained their certificates 10 or 15 years ago and have never had a chance to update themselves, inspite of the fact that the curricula has been revised and updated in the context of rapid changes in the socio-economic and technological spheres of the world. And again, with the rapid increase in population, they have to handle multigrades. But the relevant departments have not always been able to provide them with the reorientation that is required. By and large it is not possible for teachers to leave their schools and come to a central place for training for a longer duration of time.

**Existing strategies**: For the uplift of the nation to an acceptable standard, it is imperative that utmost attention should be paid to the education of the people who are going to shoulder the responsibilities tomorrow. As a first step to this direction, already trained teachers need to be provided thorough reorientation both in methods and contents. The distance education system which has already developed to a level where it can cope with such kinds of problems should be used and employed for this purpose. Several countries like Pakistan and Sri Lanka have already experimented with in-service training programmes for teachers. In Pakistan a programme known as the Primary Teachers Orientation Course (PTOC) was launched in 1976 at the request of the Federal Ministry of Education which introduced curricular reforms in the wake of the Education Policy of 1972. It was deemed necessary to provide in- service training to teachers who had received their earlier training sometime back and who were not in a position to teach the new subjects effectively. The Allama Iqbal Open University, through its Institute of Education, developed a comprehensive study package consisting of 18 study units for reorientation purposes. This programme had full support of the government and the teachers were nominated by the relevant District Education Officers. They were not required to pay any admission or examination fee. As an incentive, the university allowed them one credit concession in the higher secondary (Intermediate) examination. This helped in attracting a large number of students to this programme and up to 1986 about 83,568 teachers had received orientation through this programme.

Another example is that of the field-based teacher training model of the Agha Khan Foundation in Pakistan. This model can also be used effectively for reorientation purposes. The teachers needing reorientation and retraining are enrolled in a programme. They are supplied study

materials to study at home after school hours, and then work in pairs in classrooms observing each other's teaching. The headmaster of the school also watches them teaching and writes down his observations. Each student gives three lessons daily and also observes three lessons which are given by his/her partner along with the head of the school. At the end of the school time, they discuss their observations and comments and plan action for improvement. Occasionally they can discuss the text-material with the head teacher who is usually a well-qualified teacher. They are supplied teaching manuals for teaching different school subjects. The manuals contain teaching plans, teaching methods and techniques and help the trainees in preparing their lesson plans. At the end of the school year, there is a 2-week workshop for discussing issues confronted by the students and for preparing them for the examination. The workshop is conducted by the master-trainers (headmasters) with the help of the local school management. The site of the workshop is always close to the place of work of the trainee so that he is not required to travel long distances. Then there is a final examination to measure students' performance on the course.

In addition to the existing strategies employed by some of the institutions in the region, there are other strategies which can be used effectively for upgrading the skills and competencies of the teachers. These strategies may comprise of the following:

1. The reorientation/retraining of teachers may be arranged in instalments, taking one subject at a time. Reorientation of one subject may not take more than three or four months. The study material may be supplied in the form of units and there should be some assignments to be completed during this period. These assignments would help in keeping the teacher involved in studying the materials. They would also be helpful in his final assessment. An end-of- semester examination should be a compulsory component of the retraining programme. Reorientation/retraining efforts will be unfruitful if they are not tagged to some kind of incentives in the form of an increment, a certificate or an acknowledgement from the department and consideration for early promotion.

2. Another way of providing reorientation is the summer school. During summer holidays the teachers are usually free from teaching assignments. They can be called to a central place in the area for reorientation. For an effective use of the summer school they may be supplied some written material for study at home. When they come to the centre they should have sufficient knowledge and background information about the new concepts which are to be introduced during the summer school sessions. Written assignments have always been used as an effective tool for keeping teachers actively involved. If at least one or two assignments related to the course material are made compulsory components of the reorientation programme they will certainly help in maximizing the effectiveness of the programme.

5. **Development of teaching skills**

The advancement of the educational system of a country depends much on the academic and professional standards of teaching which is attained through a continuous programme of skills development of the teaching staff. Hence quality improvement of the teachers, at both the pre-service and in service levels, assumes a high priority in any programme of teacher education.

Although the profession calls for adequate knowledge of the subject matter, specialized skills and positive attitudes, it appears that there is a considerable percentage of teachers serving in most

countries of the region who do not possess even the basic qualifications necessary to enter the teaching profession. There are others who had received their pre-service teacher education at a particular point of time but have never had the opportunity of any in-service training during the entire period of service. In this context, it seems necessary for the education system to identify such teachers and endeavour to bring them up to the point where they could obtain the requisite level of abilities and skills to continue in the programme efficiently. The problem becomes still more acute when this is seen in the context of remote rural areas where facilities for education are most limited or non existent. The problem is further accentuated by the sheer number of such teachers and the limitation of resources which restrict possibilities of massive training through institutionalized arrangements.

There is a wide variety of teacher groups who need this support through crash training programmes. Some of these groups may be identified as below:

1. Unqualified or underqualified teachers who were engaged to perform teaching responsibilities at a time when fully qualified teachers were not available in adequate numbers. Distance education of these teachers will ensure their qualifications are upgraded within the shortest possible time;

2. Qualified but untrained teachers who never found the opportunity to receive requisite pre-service qualifications essential to continue as regular incumbents in the system;

3. Trained teachers who were trained a long time ago, but have never received the opportunity of retraining in new curricula and methodologies which are introduced into the system from time to time;

4. Qualified and experienced teachers who are assigned certain specific responsibilities (e.g. administrative, supervisory, guidance, etc.,) for which they do not possess adequate competencies.

The following skills are considered as essential to teachers working at school level to optimise their efficiency as classroom teachers:

1. *Interpreting and implementing the curriculum*

   - guidelines for adapting the curriculum for particular target groups; and
   - guidelines for planning a lesson;

2. *Managing and organizing large groups of children*

   - using the voice;
   - giving instructions;
   - ensuring instructions are followed up;
   - keeping children at work;
   - providing variety;
   - setting achievable tasks;
   - offering incentives and rewards;
   - being fair to all children; and
   - recognizing the contribution of individuals.

3. *Using different teaching and management techniques*

   - the lecture (giving information);
   - working in small groups;
   - using pupils to assist with teaching;
   - having a discussion;
   - questioning techniques;
   - using different media such as chalkboard, radio and slides; and
   - the class field trip

4. *Helping children to succeed*

   - setting tasks that are challenging, but not too difficult;
   - recognizing achievement when it occurs; and
   - giving encouragement to those who are slow to learn.

5. *Helping children at different levels of achievement*

   - ability grouping; and
   - individualized instruction.

6. *Helping children remember what they have been taught*

   - ensuring children know precisely what they want to remember;
   - providing strategies to learners to help them remember;
   - providing guidelines on how to implement the repetition principle; and
   - providing guidelines on how to implement the principle of "fading".

7. *Helping children understand*

   - giving opportunity to explain a principle/concept in own words;
   - giving opportunity to apply principles to solve problems; and
   - giving opportunity to predict what might happen in particular circumstances.

8. *Helping learners acquire mental skills*

   For example, giving learners the opportunity to:

   - analyse a problem;
   - select a feasible solution to a problem;
   - create something original out of the resources available; and
   - make appropriate choices in a given situation providing consistent and valid reasons for the choice.

9. *Helping learners develop physical skills*

The teacher must develop a knowledge of how to break major skills into subskills. The subskills must be systematically taught and combined until the whole skill can be performed.

10. *Helping learners acquire constructive and conciliatory attitudes*

- setting up situations involving conflicting values;
- requiring learners to resolve each situation in favour of the greatest goal; and,
- not imposing values. (The principle underlying the development of attitudes is that sharing of views in a supportive environment will result in improved understanding and an ability to get on with others despite differences in outlook).

Full consideration may also be given to the fact that the student teacher under training, in this context, is a mature person who has a relatively more responsible attitude towards life and the profession, and for whom this training ensures a secure career and possibly promotion in his/her profession. His/her level of commitment to the job and family should not be equated with other fresh graduates of high schools and colleges who have not yet settled in terms of their attitude toward the profession. Most of these teachers consider it their own responsibility to upgrade their knowledge and skills so as to continue in the profession with prospects of further promotion.

Some of the more relevant skills required for this category of teacher clientele may include the following:

1. Needs assessment techniques for various clientele groups according to age, sex, location, socio-economic status, etc.;

2. Differentiation of learning objectives according to the learners' level of ability and skills in a particular subject;

3. Ability to apply different teaching techniques according to the needs of various target groups;

4. Ability to adapt and/or supplement curriculum and textbooks to meet varied needs of learners, particularly those belonging to the disadvantaged groups of society;

5. Mastery of the following learning procedures to be applied for particular groups of learners:

   a) Introduction of supplementary/compensatory programmes for slow learners belonging to the disadvantaged groups;

   b) Strengthening of group-based tutorial methods and self-instructional techniques; and

   c) Practice of group interaction techniques under the supervision of mobile tutors and regional study centres.

Some of the other relevant skills specifically required in the context of developing countries include building up an empathy for disadvantaged groups, dealing with overcrowded classrooms, managing multi-grade and multi- disciplinary situations, handling juvenile delinquency, checking truancy and mainstreaming maladjusted children, (particularly those belonging to the low socio-economic strata of the society). The teacher in these societies may have to develop a more comprehensive outlook towards his wards rather than restricting himself to the four walls of the institution. Because of a lack of varied facilities of human resource development in these societies, the teacher may have to occasionally act as a welfare worker, a health and hygiene educator, a community development official and a nutrition expert as well as a catalyst of social change interested in the overall socio-economic development of the community. His responsibilities are indeed varied in scope and extent compared to the developed countries where parallel institutions exist to take care of multi-faceted needs of children in intellectual, social, physical and economic domains.

The real challenge of teacher education lies in the fact that distance education in developing countries relies heavily upon correspondence materials and self-learning packages which can be sent to teachers at a distance without involving frequent personal contacts because of a limitation of resources. The reason for the adoption of distance education in developing countries may be defeated if the system reverts to formalism of longer personal contacts requiring immense resources which are certainly not available to the system inspite of every possible justification. The distance education system is, therefore, left with the limitations of relying on self-instructional techniques and reducing possibilities of personal contact and formal teaching practice. Some of the possible ways to introduce practical skills through self-instructional techniques may include the following:

a) Incorporation of skills in correspondence course texts involving student exercises in self-learning situations;

b) Developing interactive study materials including manuals, work-books and 'do-it-yourself' style mechanisms in the learning package;

c) Optimum utilization of limited contact sessions emphasizing monitorial system and peer teaching, culminating in follow-up exercises of a self- instructional nature;

d) On-the-job experiences for working teachers in their own classes under the supervision of heads of institutions and senior teachers working in the same institution; and

e) Introduction of a mobile supervisory system on a limited geographical scale to provide guidance to working teachers on-the-job, without disturbing their normal classroom assignments and schedules.

### 6. Networking

Networking may be regarded as a mechanism or process by which individuals, groups, institutions and organizations can be linked, can collaborate or relate among themselves in order to work together towards achieving a common goal or purpose. In doing so not only resources and expertise but also concerns and responsibilities are shared. Networking could be of a formal or informal nature. But it may have to be formalized (not necessarily centralized) to such an extent where it would enable a number of varied organizations and individuals to work satisfactorily.

By networking not only common aims or purposes are achieved, but they are accomplished to optimise the results, and in a cost-effective way. A schematic representation of networking at the regional level for U.S.P. is given in Figures 2 and 3 while a networking scheme at national level for AIOU is given in Figure 4. To meet the needs of girls, disadvantaged groups and those in remote areas, a system of networking may have to be established, maintained and strengthened at various levels. A network may be appropriate among member countries or governments, for example, built around an international organization such as Unesco or one of its special agencies. The International Council for Distance Education is a voluntary organization trying to fulfil this need. At the regional level institutions and organizations dealing with distance education in teacher education may usefully develop links and collaboration. The University of the South Pacific and the University of the West Indies are two tertiary-level organizations that have developed regional level networking with the Distance Education Organizations in their member countries. International organizations like the Commonwealth Secretariat and Unesco also support their efforts. At the regional level less formal and voluntary networking is possible through organizations such as the Australian and the South Pacific External Studies Association. Nine Asian countries involved in Distance Education have formed the Asian Association of Open Universities (A.A.O.U) which is a unique example of networking at the regional level.

At a national level Distance Education Institutions have developed networks with regional study centres in the case of the Bangladesh Institute of Distance Education, National Institute of Education in Sri Lanka, Korean Air and Correspondence University, Universitas Terbuka (Open Learning University of Indonesia), Indra Ghandi Open University of India, Sukhothai Thammatirat Open University in Thailand and the Allama Iqbal Open University of Pakistan. Different government departments and institutions could be usefully brought together for the purpose of distance education of teachers, particularly teachers of disadvantaged groups and girls. Not only resources could be shared but integration of development activities is also possible. For instance, in Thailand, the Department of Non-formal Education of the Ministry of Education achieves these objectives through its distance education programmes by working closely with and involving the other Ministries such as those of the Interior, Public Health, Agriculture and Industry.

Networking in distance education in teacher education in developing countries of Asia and the Pacific is necessary not only to avoid duplication of resources, their use and material development but also to share experiences, resources and assist each other in the development, delivery and review of their services.

**Communication**

Networking should be based on regular and effective two-way and multi-way communication. Communication is used for administration, delivery of study materials, feedback from students, return of work products such as assignments and answer sheets, and organization of tutorials. This is achieved by using a variety of communication media and methods.

**Figure 2. USP System Networking with other Institutions and Organizations**

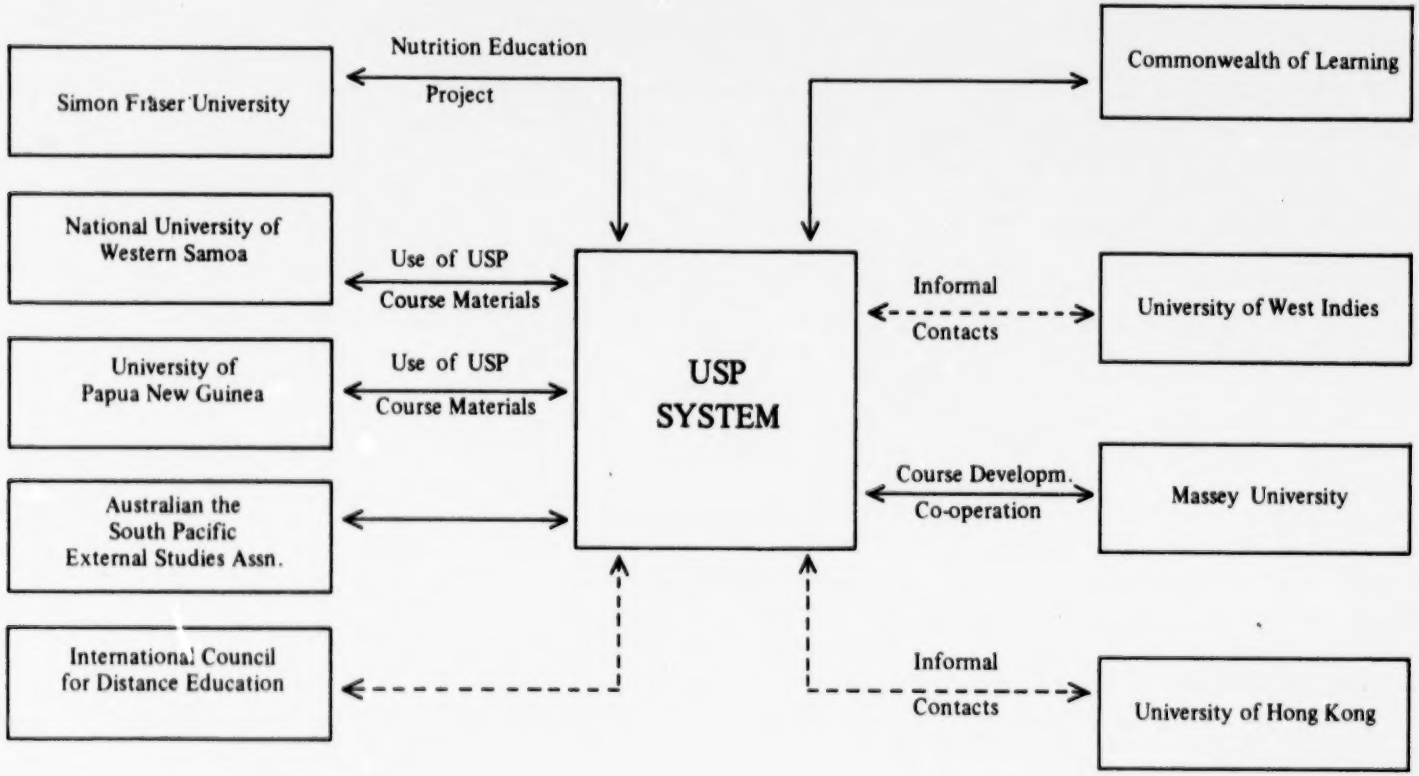
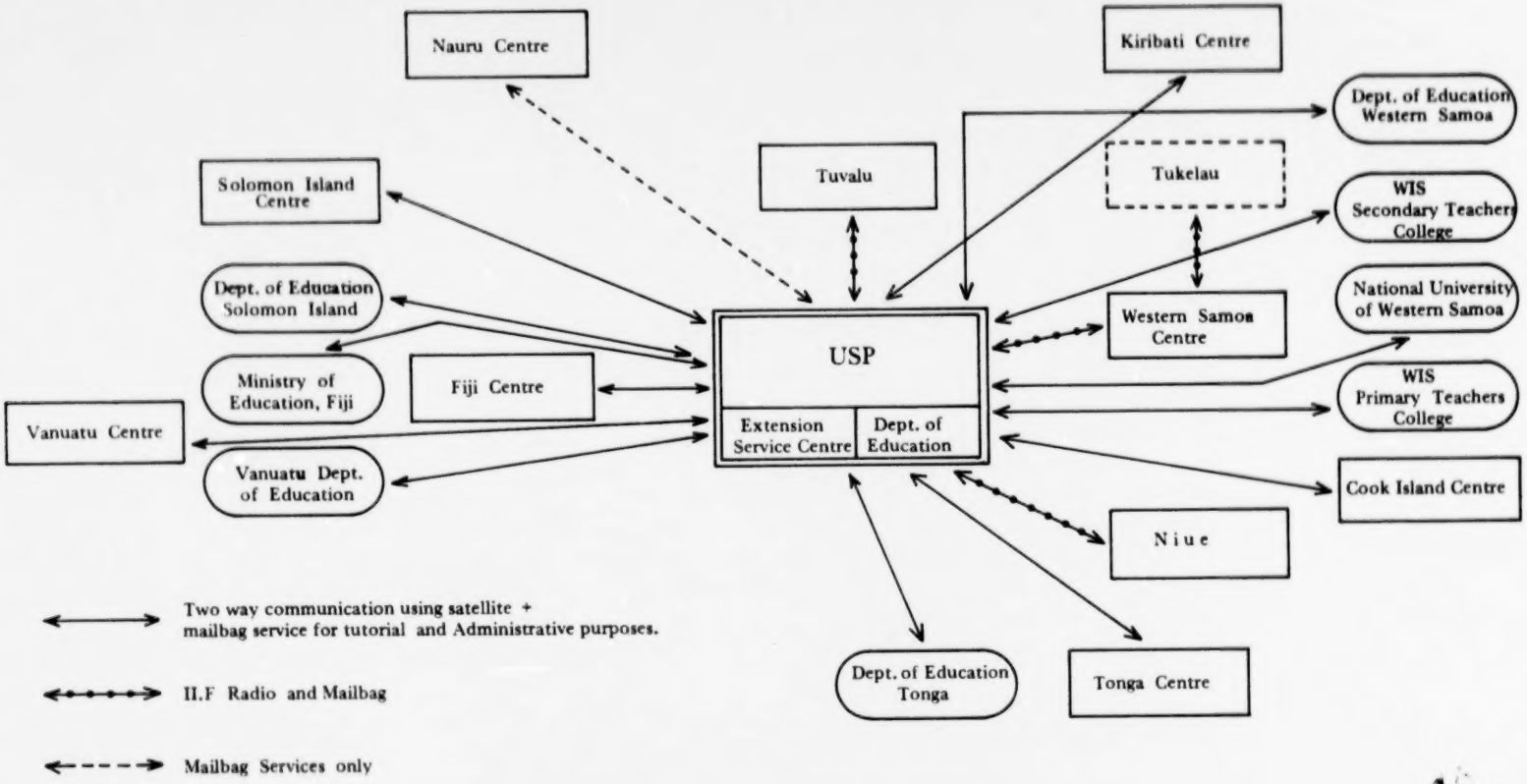


**Figure 3. USP Networking for Distance Education in Teacher Education**



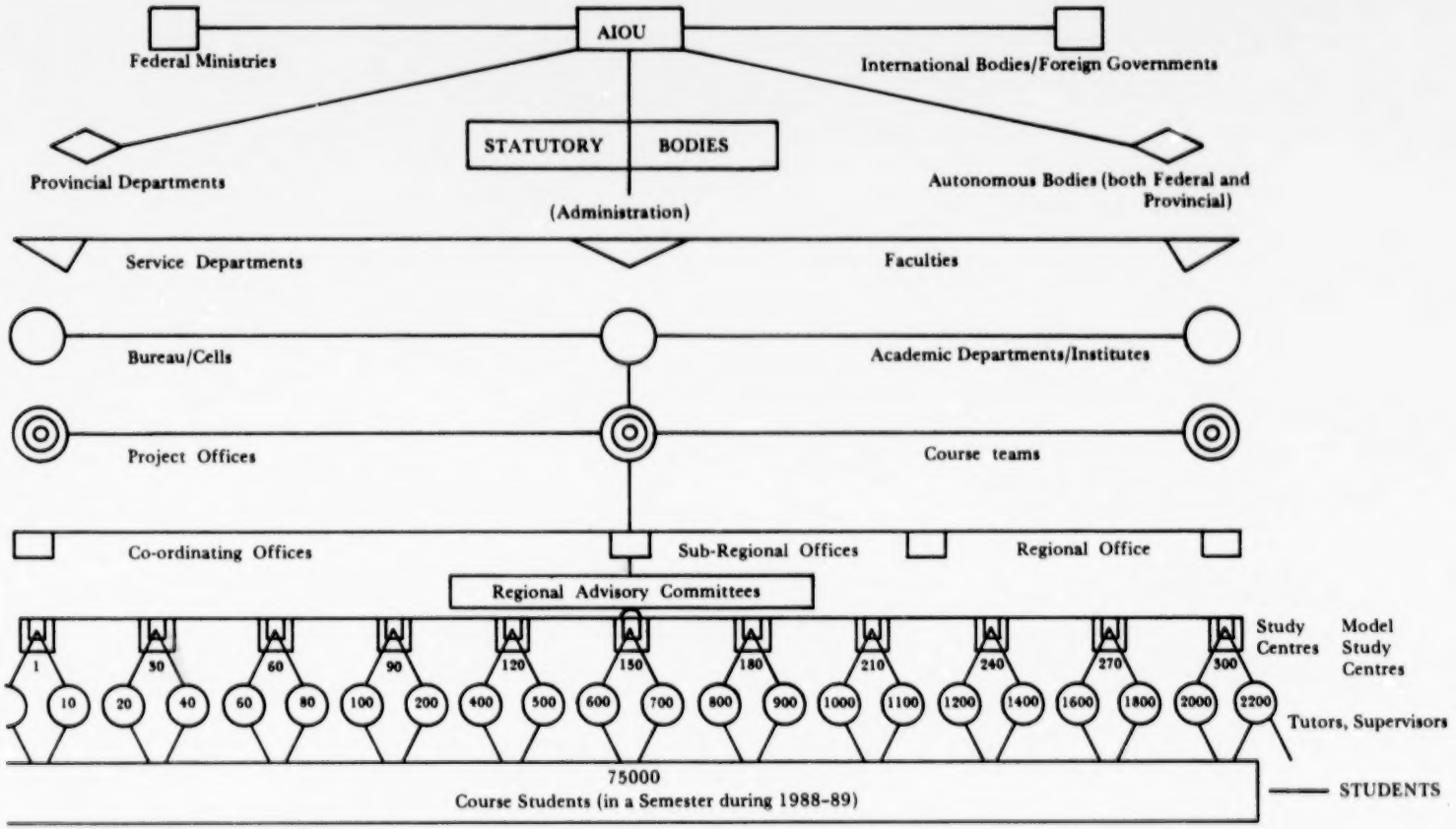







BEST COPY AVAILABLE

**Figure 4. Networking System of Allama Iqbal Open University Islamabad (AIOU)**



The common media used are mailing, telephone, radio and/or television broadcasts, and to cover a large area even satellite facilities. It is important that two-way and interactive communication be used among the different individuals, groups and organizations, involved. For instance satellite facilities are used to communicate in a vast country with difficult access through conventional modes of communication. The University of The South Pacific is linked by a satellite facility with country centres like Cook Island, Fiji, Kiribati, Solomon Islands, Tonga and Western Samoa. High frequency radio is used to link Niue, Tokelau and Western Samoa.

A regular mail bag service is used by Universitas Terbuka, Sukhothai Thammatirat Open University of Thailand, Open University of Sri Lanka and the University of the South Pacific to reach their centres and other institutions.

Mail bag services are largely used for administrative communication, for making available study materials and receiving feedback and assignments. Telephone is used for two-way communication for administrative purposes, clarification of study programmes and other enquiries. Teleconferencing is another technique which is being used in some countries and could be put to wider shared and co-ordinated use.

**Support**

In distance education, especially with regard to the disadvantaged groups, support would take at least two forms. These are the support services offered to the distant learner and the mobilization of support among interested, concerned persons and people in authority.

The support services that could be made available to distance learners through networking and any additional assistance offered through local level tutoring include supply of audio and video cassettes and the encouragement to form local study groups.

Support from parents, spouses, the community as a whole, especially its leaders, and those in authority is useful in initiating and following through a distance education programme and is essential to its successful completion. For girls especially, the support of their parents, and if married, their family, particularly the husband, could be crucial to their participation in distance education programmes. Also a network of informal and non-government organizations could help in these directions. In Indonesia, for example, the community and national level leaders supported the participation of girls in education and women in development efforts. In Thailand, Womens Organizations support and facilitate the participation of girls in distance education programmes.

Support from employing authorities especially the immediate superior, government departments and private organizations is crucial for enrolment, participation in and the ultimate success of distance education programmes. For instance, the policy of the Department of Education in Tonga of awarding increments on the completion of the U.S.P's distance education programmes in education, acts as an important incentive for teachers and other educational personnel.

7. **Development and production of materials**

*Problems in developing curricula and materials*. Many distance education institutions face the problem of getting resource people for the development of curricula and materials. The same difficulty is experienced in finding instructional designers, course writers, and also audio/video script writers.

Most distance education institutions can not employ them as permanent working staff since it is uneconomical and goes against the spirit of the distance education system. The experience of many countries shows that the people who are most needed have many prior commitments. Hence the problem of their commitments and time availability arises every time they are contacted to assist in the programmes of distance education institutions.

**Current experiences**

- Identifying the resource personnel who have experience in the distance education mode from other universities and institutions to act as curriculum designers and course writers;

- Advertising for resource people, course writers, and script writers through mass-media;

- Harnessing the available resources by giving them on-the-job training.

- Organizing resource teams to develop curricula, blue prints for course designs and deciding on suitable media.

- Contracting the course writers (in some countries the resource personnel are themselves the course writers) and giving them orientation.

- In some cases the course writing will be done by a single person whereas in the case of some other courses they will be undertaken by a team of course writers. (The group may work together to write the course or they may work separately to combine their work efforts at a later time).

- Drafts are sent, in accordance with the agreement, to the instructional designers, course co-ordinators and resource persons, for their comments, to be sent back to the course writer. A workshop to discuss the comments, and guide the writer, is also conducted to facilitate communication between various members of the course teams.

- The final draft is submitted on the stipulated date to the co-ordinating and editing staff. The final manuscripts are sent to an outside printing agency in some countries, whereas some others have their own printing facilities. Where the Distance Education. organization does not own printing facilities, difficulties may be experienced with regard to time, cost, quality and delivery of materials.

**Possible strategies**:

1. Available course writers and other staff may be given on-the-job training by the senior experienced staff; occasional workshops or briefing sessions on writing skills, self-assessment techniques, evaluation strategies, and script writing for radio and television, etc.

2. Regular courses on curricula and material design to be conducted through the Distance Education methodology. These courses may earn a credit to a degree, or they may be at an orientation level only.

3. Workshops of short term duration for training of Distance Education personnel, if possible with regional co-operation, may be organized.

4. A well defined format for course writers, radio and video script writers may be prepared in manual form and given to all new personnel joining the distance education system.

5. To rèduce the possible delay in printing, an advance payment system may be introduced in consultation with the printers.

6. A precise production schedule, drawn up in advance, based on possible student enrolment and time available, may be followed. Production should start well ahead of time, and materials should be produced before commencing the enrolment of students in a programme.

8. **Dissemination of materials**

Distance education students are scattered all over the country and so the timely distribution of materials to them is a major problem, especially with regard to students living in remote areas. Delays in the expeditious distribution of printed materials which should synchronise with the study schedule, and broadcast programmes, causes study problems for the student-teacher. It also causes administrative problems since it tends to result in student drop-outs, and irregular performance schedules. Authorization procedures that have to be adhered to prior to engaging a printer are tedious and time-consuming. They delay the printing process and impair speedy distribution of materials in some countries. There is also delay in distribution due to unsatisfactory distribution channels. In some countries, printed material is disseminated with the help of the government postal service. Vageries of the service tend to have a bearing on the distance education. distribution system. Lack of proper transport facilities and remoteness calls for delays.

**Possible strategies**

1. Close co-ordination between course writers (media & print) and printers to synchronize efforts and to minimize delays.

2. Creation of printing facilities within the distance education organization to handle its own printing and distribution of materials may be considered.

3. A distribution plan must be firmly adhered to by all involved in the procedure, and a system of monitoring to speed up the procedures should be institutionalised.

4. All students and regional centers must receive the printed materials well ahead of the time schedule. Publicity should be given on the local radio and mass media for the students to come and collect the materials.

5. A system of monitoring existing stocks at the regional centers should be made effective time to time to ensure proper stocks be delivered well ahead of the start of the study period.

6. **In most remote areas the teacher-students cannot attend the study centres. A co-operative effort could be built up between the administrative machinery of the region, the headmaster, and the teacher-students. Either the education officer in charge of the region or the headmaster should develop liaison with the Regional Distance Education centre when new stocks arrive, to ensure timely delivery to the teachers enrolled in the courses. The initiative in the procedure has to be taken by the regional D.E. personnel, who are ultimately responsible for proper distribution of study materials.**

9. **Evaluation: ensuring the success of teacher education at a distance**

Having opened up educational opportunities by distance for teachers, particularly those who are disadvantaged due to geographic isolation, efficient monitoring mechanisms must be established to ensure that both the delivery and student study support systems are meeting the needs of the target groups. Several problems typical of the Asia/Pacific region pose challenges to establishing a satisfactory monitoring system. In the first instance, the nature of remoteness itself is characterized by locations in isolated rural and physically harsh environments where even very basic communication and transport facilities cannot be taken for granted. Secondly, staff are not available to conduct required evaluatory exercises. In addition, it is recognized that such exercises are quite specialized in nature and personnel require at least some initial training to carry out their tasks satisfactorily.

Discussing evaluation in distance education, Mary Thorpe identified the following essential aspects:-

a) measurement of achievement of objectives of a programme as a whole;

b) judging the effectiveness of courses or materials;

c) finding out what the inputs into a programme were in terms of such matters as number of staff, number and content of contact hours, time spent by the learner, and so on;

d 'mapping' the perceptions of different participants in terms of learners, tutors, trainers, managers etc.;

e) exploring the comparative effectiveness of different ways of providing the same service;

f) finding out any unintended effects of a programme, on learners, clients and open learning staff;

g) regular feedback on progress towards meeting programme goals;

h) finding out the kinds of help learners need at different stages;

i) exploring the factors which appear to affect the outcomes of a programme or service.*

Besides the above aspects, all of which are crucially important, evaluation systems need to monitor the following two major components of the distance education programme in the region:

---

* Thorpe, Mary. *Evaluating open and distance learning*, Longman, London. 1988, p.7

a) *The delivery system*

A number of challenges need to be met if delivery systems are to become effective in the distance education programmes. The currently available standardized teacher education curricula by distance often meet needs of a general nature and, therefore, bypass a great variety of specific local needs, particularly those arising out of the isolation of groups in remote rural communities. On another level, entry requirements to study these curricula are the same for students from a variety of backgrounds ranging from those who are extremely poor in terms of background knowledge, exposure, cognitive and study skills, to well-prepared students.

One of the major tasks of an evaluation system, therefore, is to ensure that this gap is narrowed as much as possible.

**Strategies for an effective delivery system**

Preparatory courses for background information on distance education and programmes have been found to work in a number of countries. A further purpose of such courses could well be to provide students with opportunities for encountering and practising the kinds of skills required for independent learning.

Students failing to adjust to programmes because of a gap in knowledge and skills may benefit from support devices such as remedial materials and/or extra study guides. The main benefit of such programmes lies in the fact that they can be delivered in the distance mode at a reasonable cost which will gradually decrease further as responses to specific needs are identified and approaches made to address them.

Many delivery systems would benefit from decentralized strategies in their attempts to offset the problems of coping with distant communities. Local marking and tutoring to support institutional programmes of study would ensure quick feedback to students on progress, and hence enhance student motivation to continue with their studies. Coupled with this should go the attempt to include self-assessment exercises as part of the self-monitoring devices available to distance students. Under this strategy, not only do students have the opportunity of assessing their progress throughout the course themselves, but it also provides them with the opportunity to interact with their learning materials and thereby become active learners.

b) *Student support systems*

Ensuring that students are given adequate support through the course is just as important as ensuring that the programme of study delivered to in-service trainee-teachers is effective. Again the main obstacles to establishing a useful student support system are those related to remoteness and the accompanying inadequate communication and transport infrastructure.

**Strategies for an effective student support system**

Because there are inevitable delays in reaching remote teachers and in receiving assignments, and establishing a regular system of communication and feedback with them, a major requirement would be to allow these students a more flexible study schedule that would not expect them to submit

assignments by set deadlines or even sit examinations at a stated point in time. These students should, by choice, or even through professional advice, study on until the next examination period, more realistically timed to accommodate inevitable delays in the systems.

The need to send in, and receive back, material should be minimized as much as possible, so that all study materials should ideally be sent out to students with the first mailing. Course packages are advised to contain a minimum number of comprehensive assignments and tests to be marked, preferably at the local centre, or at institutional headquarters.

Intervention counselling can be carried out at a distance using print and/or audio-tape material to elicit information on student progress and to alert teacher educators to the need for solutions directed at specific problems.

Tutorial services have been appreciated wherever they occur in that they counteract the demoralizing effects of isolation. These can be established at the study centre for those with access to it. For those out of reach, visits to the remote communities by tutors as frequently as possible must be advocated as a means of sustaining interest and motivation, and to provide students with the opportunity of discussing their problems and obtaining immediate feedback.

## STRATEGIES FOR REACHING TEACHERS OF THE DISADVANTAGED

### SUMMARY

| Aims/goals | Obstacles | Strategies to overcome obstacles |
|---|---|---|
| 1. Access | - Lack of awareness of D.E. opportunities | - Creation of teacher awareness of D.E. opportunities through co-operative efforts of institutions, government and media agencies. |
| | - Prohibitive cost of D.E. programmes for low paid teachers | - Pre-counselling assistance followed by study support systems |
| | - Lack of proper entry requirements | - Pitching level of programmes at the entry level behaviour of target group to inspire confidence in ability to undertake the programme by distance |
| | - Lack of confidence to undertake independent D.E. studies | - Full or part financial support by government scholarships to D.E. students |
| | - Lack of related reward system | - Well qualified and renowned course writers to lend credibility to courses and programmes |
| | - Inadequate media support | - Use of alternative media |
| | - Perception of D.E. as second rate education | - Establish related reward system-promotions, increments, new jobs, etc. |
| | - Non-availability of tutors in the remote areas resulting in decreased contact sessions | - Engagement of itinerant tutors to facilitate on-the-job training of teachers |
| 2. Relevance | - Inadequate and outdated curricula | - Update and extend curricula to various groups |
| | - Lack of appreciation of diversity of needs of disadvantaged groups | - Launch field-based teacher education programmes |

| Aims/goals | Obstacles | Strategies to overcome obstacles |
|---|---|---|
| | - Non-availability of skills and know-how to develop relevance | - Introduce school-based public awareness programmes to bring information and pressure to influence curricular changes |
| | - Lack of co-ordination of locally available community resources to provide relevance | - Ensure maximum utilization of available community resources |
| | | - Institutionalise clientele participation in review and improvement of courses |
| 3. Equity | 1. Lack of access to relevant instruction | 1. Availability of school subjects instruction for adult learners (e.g. primary and secondary level programmes through D.E.) |
| | 2. Indifferent attitude towards disadvantaged groups | 2. Provision of incentives at the lowest level of the system |
| | 3. Low socio-economic conditions debarring deserving students from entering D.E. programmes | 3. Provision of distance learning materials at the minimum cost to the D.E. students |
| | | 4. Availability of stipends and scholarships for needy students of D.E. programmes |
| 4. Professionalism | 1. Too much centralization of structures | 1. Decentralization of structures and resources |
| | 2. Conformity to established norms and standards | 2. Providing diversified curriculum in various fields of specialisation |
| | 3. Lack of incentives for professional growth | 3. Incentives in the form of advance increments and early promotions |
| | 4. Lack of political support | 4. Media to be used for gaining public support |
| | 5. Lack of motivation on the part of professionals to continuously upgrade themselves | 5. International bodies to be asked for literature and support |
| | | 6. Institutionalising higher level training facilities at specialist level |

| Aims/goals | Obstacles | Strategies to overcome obstacles |
|---|---|---|
| 5. Development of teaching skills | 1. Distance education relies on correspondence texts involving least chances for formal contacts | 1. Incorporation of skills in the correspondence course texts involving student exercises in self-learning situations |
| | 2. Workshop experience and practise teaching are time consuming and demand more resources-both human and material | 2. Developing interactive materials, including manuals, work-books and do-it-yourselfstyle mechanisms in the learning packages |
| | 3. Advanced level professional training in distance education is required to introduce practical exercises through self-instructional materials | 3. Optimumutilization of the limited available contact sessions emphasising monitorial system and peer teaching |
| | | 4. Pròviding on-the-job experiences for working teachers in their own classes under the supervision of heads of institutions and senior teachers working in the same institution |
| | | 5. Introduction of mobile supervisory system through itinerant tutors on a limited geographical scale to provide guidance to working teachers on-the-job, without disturbing their normal classroom assignments and schedules |
| 6. Networking | 1. Unhealthy competition, duplication of overlapping activities of institutions involved in both formal and D.E. programmes | 1. Promotion of formal and informal contacts and linkages to share concerns, resources and skills of organizations involved in distance education at a distance |
| | 2. Parents, spouses and the community do not see the value in the continuing education and professional development of teachers, especially in remote rural areas | 2. Launching of parent and community education programmes to sensitize these groups to the need for continuing and professional development of distance teachers |

| Aims/goals | Obstacles | Strategies to overcome obstacles |
|---|---|---|
| | 3. School and community are not closely linked to foster development | 3. Organization of parent-teacher associations, and school development committees, to enable the teachers and community to understand their mutual roles |
| | 4. Lack of communication between the field staff and the teacher trainees | 4. The D.E. centres should develop direct communication by mail and telephone |
| | 5. Lack of coordination in national and regional institutions and agencies | 5. Arrangement for visits and frequent direct contacts with students in remote areas |
| 7. Efficient materials development and production | 1. Dependence on outside writers and course designers to make D.E. system cost-effective | 1. Strengthening relationship with outside institutions and agencies to obtain their expert services |
| | 2. Lack of co-ordination between production personnel and printing procedure | 2. Increase in incentives for resource personnel and outside D.E. personnel |
| | 3. Lack of trained personnel to write and develop D.E. materials | 3. Diversification of ways of getting the course writers, script writers, etc. to work with each other |
| | 4. Limitation and slowness of tedious authorization procedure for printing jobs | 4. Training and professional growth of part-time D.E. personnel engaged from other agencies |
| | | 5. Flexibility in authorization procedures for development and printing assignments |
| 8. Dissemination of materials | 1. Lack of efficient mechanism to deal with distribution | 1. Introduction of a more efficient system of distribution by increasing personalised relationships with the mail service authorities |
| | 2. Obstacles of conventional distribution system in remote rural areas | 2. Getting the school principals, head masters and regional educational administrative officials to co-operate with the D.E. Regional Offices to ease out problems of distribution |

| Aims/goals | Obstacles | Strategies to overcome obstacles |
|---|---|---|
| | 3. Lack of planning and time scheduling | 3. A specific printing and distribution schedule to be followed |
| | | 4. Facilitating exchange of materials between students, whenever possible |
| 9. Evaluation | 1. Remoteness of location of students | 1. Minimise need to use local communication and transport infrastructure through<br>- As few assignments and tests as possible<br>- Self-assessment strategies<br>- Staggered schedules for remote areas |
| | 2. Non-availability of staff and proper expertise for evaluation | 2. Decentralised strategies such as the following may be tried;<br>- Staff at local level to monitor feedback systems<br>- Local marking and tutoring<br>- Pre-counselling and intervention counselling |
| | 3. Inadequate communication and transport infrastructure | 3. Dependence on distance mode may be encouraged for;<br>- Preparatory course for background information,<br>- practice in independent study<br>- Remedial materials<br>- Extra study guides<br>- Counselling service |
| | 4. Standardized D.E. teacher education curricula do not accommodate variety of local needs | |
| | 5. Vast differences exist between background knowledge, educational level, cognitive and study skills of advantaged and disadvantaged groups | |

## Chapter Three

## NATIONAL FOLLOW-UP PLAN OF ACTION

The participants of the Regional Workshop recognized the importance of distance education in teacher education as one of the means to reach teachers and disadvantaged groups, particularly those who are teaching in remote rural areas. It was noted that many teachers in remote areas are underqualified or untrained, and if trained, need in-service education for professional growth through distance education. The participants indicated keenness to undertake appropriate activities by initiating national follow-up action plans of the Regional Workshop.

An outline for the proposed follow-up action plan was collectively developed emphasizing:

1. Statement of the problem,
2. Objectives,
3. Workshop strategies/activities,
4. Participants,
5. Organizer, venue, date and duration,
6. Resource person/consultants,
7. Nationwide dissemination,
8. Budget sources

It was made clear that the proposals are only tentative at this point. It is understood that the participants will have to consult appropriate authorities in their respective countries regarding the proposed follow-up activity. Thereafter, a proposal for assistance from the Government, relevant funding institutions and, Unesco (in the form of financial support, technical assistance involving availability of resource persons/consultancies) shall be made to Unesco through the respective National Commissions for Unesco, with a copy to the National Development Group of APEID. In the case of U.S.P., the proposal may be sent directly to Unesco.

The tentative proposals were presented by each participant and discussed in a plenary session. Suggestions for improvements/refinements were offered by fellow participants. After incorporating certain changes, the following countries and institutions offered their follow-up action plans:

1. Bangladesh
2. Indonesia
3. New Zealand
4. Republic of Korea
5. Pakistan
6. Thailand
7. Sri Lanka
8. The University of the South Pacific.

A summary of the national follow-up plans of action presented by the participants is given in the following pages.

## Summary of National Follow-up Actions Plans

| Country | Nature of Activity | Purpose | Participant | Venue and duration |
|---|---|---|---|---|
| 1. Bangladesh | Inter-Ministerial Seminar | Finding out ways and means for co-ordinated efforts for development of appropriate strategies and materials for D.E. programmes | Experts belonging to various Ministries and nation-building departments | B.I.D.E. (10 days) |
| 2. Indonesia | National Workshop | Training new staff in D.E. strategies including instructional designs, objectives, test items, etc. | Teacher education faculty and audio-video personnel | Universitas Terbuka (one week) |
| 3. New Zealand | National Follow-up Seminar | Interlocking themes of the regional workshop on "Teacher education at a distance in developing countries" | Representative of teachers, colleges and principals of D.E. institutions including a representative (English speaking) of a developing country | D.E. institutions on Wellington (2 days) |
| 4. Republic of Korea | National Workshop | Promoting knowledge and attitudes of D.E. for improving efficiency and building up a national networking mechanism | Members of staff of 1/3rd regional D.E. country on random basis (about 17) | KNUE (10 days) |
| 5. Pakistan | National Workshop | Identification of needs of disadvantaged groups; preparation of suitable contents and development of strategies for launching effective teacher education programmes via D.E. | Faculty members of AIOU engaged in teacher education and teacher educators/administrators of formal institutions (about 24) | Teacher Education Dept. Faculty of Education, AIOU (one week) |

## Summary of National Follow-up Actions Plans (cont'd.)

| Country | Nature of Activity | Purpose | Participant | Venue and duration |
|---|---|---|---|---|
| 6. Thailand | National Workshop | Development and production of prototype materials oriented towards meeting the needs of disadvantaged groups | Twelve participants from nation building departments of the government and 8 participants from NGOs | Regional NFE Centre (one week) |
| 7. Sri Lanka | Orientation Workshop | Orientation in skills on effective T.E. via D.E. for disadvantaged groups and development of materials to meet their needs | Directors of NIE Projects, Project Officers from I.D.E., representatives of Primary Education Unit of Curriculum Development and selected members from the Ministry of Education | N.I.E. National Youth Centre (10 days) |
| 8. University of the South Pacific | Seminar | Finding out mechanisms for effective use of USP's centres to meet the needs of learners in remote areas through teacher education via distance education | Centre Directors, selected lecturers from the centres, course development staff and course co-ordinators of USP. | Extension Services Section of the USP Department of Education (one week) |

## Chapter Four

## REGIONAL CO-OPERATION

In the light of discussion on different agenda items, and motivated by the desire to forge closer linkages and working relationships among the participating countries, one plenary session was devoted to finding out ways and means towards more effective regional co-operation.

It was suggested that a network be formed. The network could serve several purposes, namely (i) exchange of materials, (ii) sharing of technical know-how and, (iii) sharing of expertise. It was pointed out that a wealth of materials on distance education in teacher education, including those designed for teachers of disadvantaged groups, have been developed in many countries in the region. It was suggested that an inventory of exemplary materials be prepared and circulated among interested institutions/individuals in the region. It was stressed that many of these materials could not be used in the present form, and adaptation needs to be done by the receiving countries/institutions.

A few countries are publishing journals on distance education (e.g. Pakistan and New Zealand). It was suggested that contributors to the journals be extended region-wide, i.e. to educators of other countries involved in distance education. Likewise, issues of the journal with articles on teacher education could be circulated to all concerned in the region.

Another possibility was to exchange technical know-how, such as the exchange of technical papers. Many such papers could be articles in the above-cited journals, but some could be in the form of 'how-to-do-it' type manuals on distance education in teacher education. It was pointed out that Unesco also publishes technical papers/occasional papers, which in the future could be on distance education in teacher education, designed towards meeting the needs of disadvantaged groups.

Through the network, it was also possible to facilitate the exchange of expertise such as by the provision of consultancy services to countries/institutions in the network; or the attachment of staff of one country/institution in another country/institution with better expertise and/or experiences.

The idea of an association of institutions involved in distance education in teacher education, especially those addressing the needs of disadvantaged groups was discussed. It was pointed out that there is an Association of Asian Open Universities (AAOU), but none on the level below university status.

It was pointed out that one of the recommendations of the last Regional Consultation Meeting on APEID (1988) pointed out the need for thematic task oriented sub-grouping. One such thematic task oriented group could be on teacher education via distance education aimed at meeting the needs of the disadvantaged groups.

**Annex I**

**LIST OF PARTICIPANTS**

| | |
|---|---|
| BANGLADESH | Mr. Azhar Ali<br>Deputy Chief,<br>Planning Cell<br>Ministry of Education<br>Bangladesh Secretariat,<br>Dhaka |
| INDONESIA | Mr. Bilal Daulay<br>Co-ordinator<br>Study Programme on School Management<br>Universitas Terbuka,<br>Jakarta |
| | Mrs. Harina Yuhetty<br>Staff,<br>Centre of Educational and Cultural<br>Technology and Communication<br>Jakarta |
| PAKISTAN | Dr. Arif Zia<br>Assistant Professor<br>Allama Iqbal Open University<br>Sector H8, Islamabad |
| REPUBLIC OF KOREA | Dr. Byong Sung Kim<br>Professor<br>Korea National University of Education<br>7 Darak-ri, Kangnaemyun,<br>Cheongwon-gun, Chungcheon Buk Do |
| SRI LANKA | Mrs. R.R. Abeyawardena<br>Chief Project Officer<br>National Institute of Education<br>Maharagama |
| UNIVERSITY OF THE SOUTH PACIFIC | Mrs.Eileen Tuimaleali'ifano<br>Co-ordinator of Course Development<br>Extension Services<br>University of the South Pacific<br>P.O. Box 116, Suva, Fiji |

| | |
|---|---|
| | Dr. T. Velayutham<br>Reader in Education<br>University of the South Pacific<br>P. O. Box 1168, Suva Fiji |
| THAILAND | Mr. Sunthorn Promratanapong<br>Senior Radio Producer<br>Centre for Educational Technology<br>Department of Non-formal Education<br>Ministry of Education,<br>Bangkok |

**OBSERVER**

| | |
|---|---|
| THAILAND | Dr. M.L. Pariya Nawarat<br>Supervisor<br>Department of Vocational Education<br>Ministry of Education,<br>Bangkok |
| INDONESIA | Dra. Johanna B.S. Pantow,<br>Co-ordinator,<br>Study Programme on English Education<br>Universitas Terbuka<br>P.O. Box 666,<br>Jakarta 10001 |
| | Ir. Harris Iskandar<br>Staff Member,<br>Faculty of Science and Mathematics<br>Universitas Terbuka<br>P.O. Box 666,<br>Jakarta 10001 |

**RESOURCE PERSONS**

| | |
|---|---|
| PAKISTAN | Dr. Shaukat Ali Siddiqui<br>Dean, Faculty of Education<br>Allama Iqbal Open University<br>Islamabad |
| NEW ZEALAND | Mr. Perter Wilkinson<br>Staff Development Tutor<br>New Zealand Technical<br>Correspondence Institute<br>Private Bag, Lower Hutt |

**UNESCO SECRETARIAT**

Dr. Leonardo de la Cruz
Head, Asian Centre of Educational
Innovation for Development (ACEID)
Unesco PROAP, Bangkok